Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVI. No. 3 — 8 DECEMBER 1928

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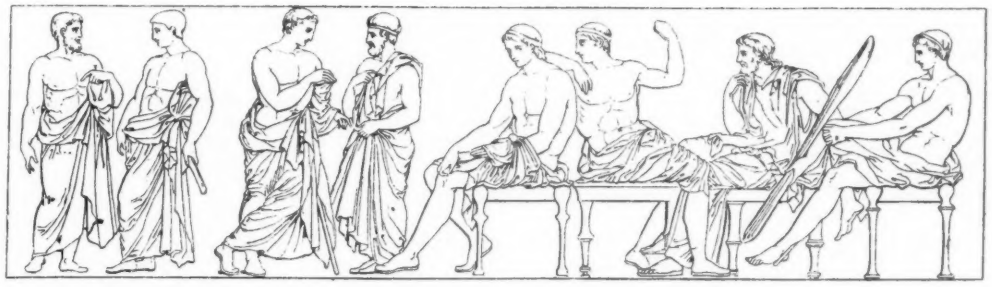
Stepped Porch off Central Court with First Flight of Stairs Beyond

Palace of Knossos

VOL. XXXVI. No. 3 8 DECEMBER 1928



The Palace of Knossos and its Dependencies in the Light of Recent Discoveries and Reconstitutions

(Résumé of Communication)

BY SIR ARTHUR J. EVANS, D.LITT., M.A., F.R.S., F.S.A. [*Hon. A.*].

(*Read before the Royal Institute of British Architects on Monday*, 19 *November* 1928).

IT is not too much to say that in the last few years the site of Knossos has renewed its life. Not only have supplementary researches done much to complete the plan both of the upper and lower storeys of the great Palace itself, but our knowledge of its entrance system and approaches has been altogether revolutionised. New houses have been brought to light, some of them going back to Late Neolithic times, while in others, belonging to the acme of Minoan culture, new and interesting arrangements have been brought out together with a wealth of naturalistic fresco decoration.

Our knowledge of the town itself has been much extended and linked with that of the harbour town, so that the epic epithet of " broad Knossos " is seen to be nothing more than a just description. West of the stream, walls have come out of exceptional massiveness, and on the rocky steep above a series of chamber tombs, going back for the first time to the earlier age of the Palace.

I have endeavoured to set forth many of these results in the successive instalments of my work on the " Palace of Minos " that have already appeared, and am by now well advanced with another volume, but it is naturally on the present occasion impossible to give more than a brief retrospect of some outstanding features.

Of all the developments of recent years perhaps none have been more astonishing than those that have for the first time revealed the southern entrance system of the Palace. From the indications supplied by these, moreover, it was possible to follow the traces of a main southern road of approach leading right across the central ranges of the island to a more distant harbour town on the shore of the Libyan Sea, the natural port of arrival from Egypt. The point where this " Great South Road " reached the crest of the ravine, separating it on that side from the Palace, was marked by a building of an entirely new character. It was in fact a caravanserai or " hostel," offering shelter both for man and beast, and here came to light the remarkable little refectory with its frieze of partridges and hoopoes, together with its adjoining foot-washing basin and exquisite little spring chamber, later used as a shrine. Immediately beyond this—one of the great surprises of the excavation—were uncovered the lower parts of

huge piers that had supported the viaduct by which the South Road reached the point where the earlier course of a small torrent was spanned by a Minoan bridge (Fig. 1). Splayed blocks among the ruined remains of this and others from the viaduct beyond pointed to the use of corbelled arches.

From the point where the bridge had abutted on the Palace side of the slope three causeways had diverged. One of these stepped up to the south-west corner of the Palace under a rising portico which, after taking a turn to the right, ascended again to the left to what had been an important South-West Porch in the earlier period of the building (Fig. 2). The data now recovered showed that the use of this, as of the adjoining South Corridor, was cut short by a great seismic overthrow towards the close of the third Middle Minoan Period—early, that is, in the sixteenth century before our era.

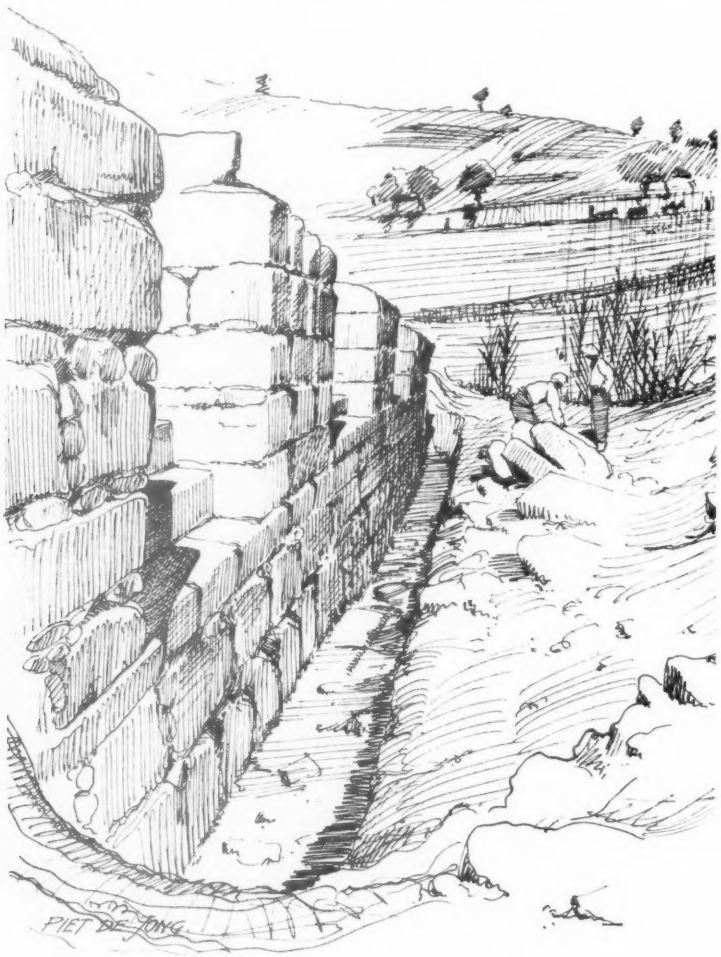


FIG. 1.—LOWER PART OF SECTION OF VIADUCT. By Piet De Jong

It was, therefore, of special interest from the

chronological point of view that in the area of this South-West Porch, as among the remains of the earlier South Propylæum also overthrown at this time, remains of rosette reliefs and " half-rosette " friezes executed in hard stone and exactly corresponding with those from the façade of the " Atreus " or " Agamemnon " Tomb at Mycenae should be found.

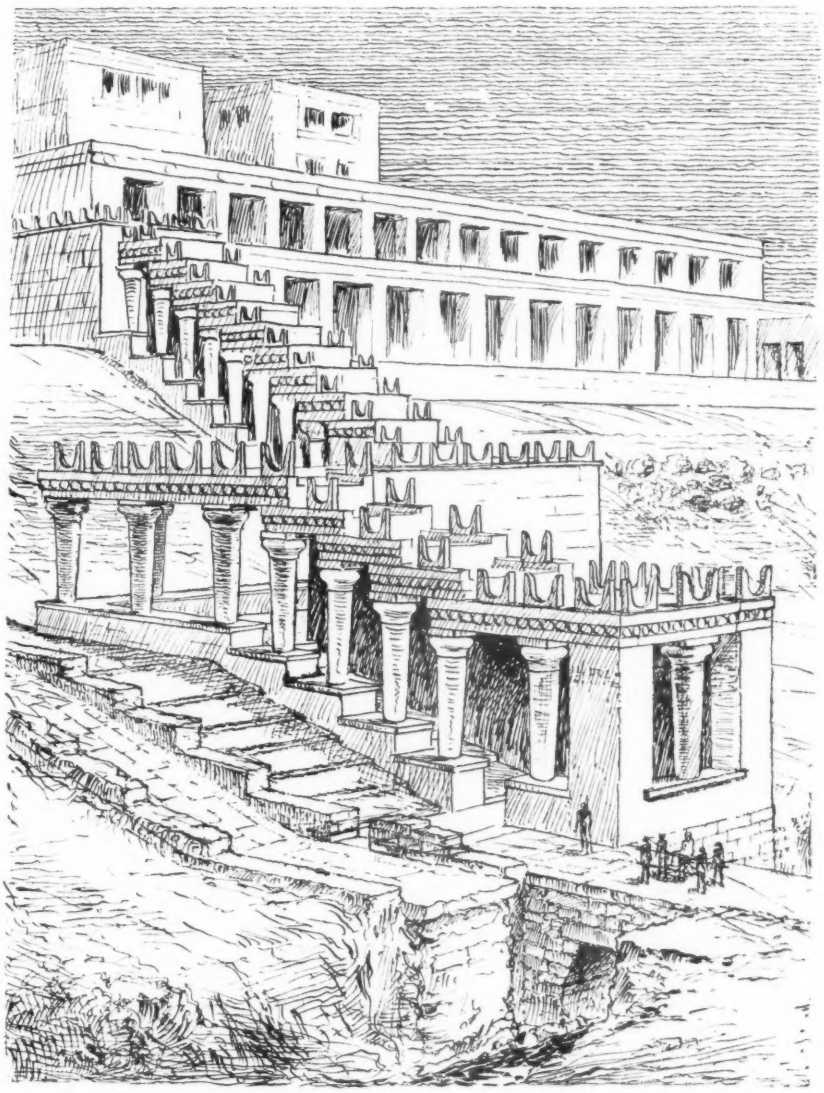


FIG. 2—RESTORED SKETCH OF STEPPED PORTICO SOUTH WEST OF PALACE
By F. G. Newton. Completed by Theodore Fyfe

Further remains of similar friezes—the mark of great portals—had fallen into two basement spaces near the north-west corner of the building, and

these, in connection with other phenomena, had made it possible to recognise at that angle an entrance that had hitherto been overlooked. A flight of steps leading to it had brought this entrance into direct connection with the " Theatral Area " a little below it, which indeed seems to have been less of an actual theatre than an area for official receptions. It communicated in turn with the paved Minoan way running west towards the Little Palace.

This " Theatral Area " has itself been proved by recent investigations to have had a long antecedent history, two principal earlier levels revealing themselves. There was clearly a larger paved space here according to the earlier arrangements, which may more have resembled the West Court at Phaestos.

A branch line of the causeway, that starting from this area, served the stepped entrance at the north-west Palace angle led south across the West Court to the well-preserved remains of the West Porch. On this side, again, recent researches have thrown quite a revolutionary light on the early history of the building. A row of base slabs visible in the pavement of the court some three metres out from the later façade clearly marked a time when the original line of frontage here ran somewhat west of its later course. These early base blocks, moreover, curved in on their southern extremity, and it was found that at this point a line of causeway running due east could actually be traced beneath the later wall. It became evident, therefore, that the earlier entrance on the west side instead of finding its way south, as it does from the later West Porch, and then turning left by a detour to the South Propylæum, had entered the Palace in an eastward direction. The entrance piers of a row of magazines, marked by the cross-paté sign in the interior of the building running from west to east, belong apparently to this earlier system. We have thus at Knossos a nearer anticipation of the *decumanus maior* of Roman castra than had at first been recognisable.

Of the west porch, with its wall-paintings of bull-grappling scenes belonging to the latest age of the Palace, it is possible to make an almost complete restoration, including the recently recovered plan of a warder's lodge in addition to the central State chamber. The interior corridor into which it led is well known from the remains of the " Procession Fresco," found in parts still adhering to its walls. Further exploration, however, has now shown that this entrance corridor was in fact preceded by an earlier and slightly narrower passage in which lay much smoke-damaged fragments of frescoes resembling that of the " Ladies in Blue " from the east quarter, and belonging to the beginning of the Third Middle Minoan Period.

The further course of the corridor of the " Procession " can be traced turning abruptly from the south-west Palace angle and running thence to the South Propylæum and beyond it to an upper South-North Corridor leading to the southern entrance. A series of new discoveries has made it possible to recover both the earlier and the later plan of the South Propylæum, which in its original shape may have been the actual prototype of that of Tiryns. The processional decoration of the entrance corridor was continued here in the later of the two Propylæum halls. A part of this has been reconstituted, with one of its imposing anterior columns and a section of its roof, in order to protect a restored replica of the Cupbearer fresco (Fig. 3), replaced on the left wall in the position from which it had fallen. A similar replica of the painted relief of the priest-king with the lily crown—executed, like the other, by Monsieur Gilliéron fils—has been set up in its original position in the upper South-North Corridor near the point where it abutted on the Central Court.

A good deal of the upper floor, representing the *piano nobile* of the west quarter of the Palace, approached from the Propylæum by a broad flight of steps, has been restored in ferro-concrete. It has been possible thus to set again firmly in their original positions various elements belonging to the upper floor found somewhat sunken, including door jambs and piers, and, in particular, to restore to their original places the fallen column bases of the principal " Tricolumnar Hall." Beyond this, moreover, blocks in position showing the cuttings for stair slabs and the fallen remains of some of the gypsum stairs themselves, have supplied the elements for the reconstitution of the first flight of the central staircase on this side, rising from above the stepped porch leading from the Central Court (***Frontispiece***).

From the cumulative evidence derived from the examination of a whole series of deposits immediately superposed by the later structures, it has been possible to establish the fact that the

Palace, as restored and remodelled in its later form, dates largely from an epoch approaching the end of M.M.III, and is to be referred on other evidence to the first decades of the sixteenth century B.C. That this was the result of a great seismic catastrophe is most clearly shown by some phenomena brought to light outside the north-east Palace angle. The original structures here—which in this case were never restored—had been in part precipitated into the deep underlying vaults due to mining operations, apparently unknown to the builders, in part hurled outside the corner walls on to some M.M.III houses lying near them, and which were found crushed beneath the great Palace blocks.

A characteristic feature of the west quarter of the Palace as restored after this catastrophe was the widening out of its east façade about three metres in that direction, thus providing room for a series of porticoes and verandahs on the outside of the Central Court. In a bay between two sections of these was built a little columnar shrine, an illustration of which was submitted by me to the Institute some years back. An elevation of the west façade, the general features of which are well ascertained, and incorporating this feature, was executed for me by the late Mr. F. G. Newton (Fig. 4).

FIG. 3.—RESTORED SECTION OF SOUTH PROPYLÆUM
Showing replica of Cup Bearer Fresco, as set in original position

Before proceeding to a consideration of the new developments in the east quarter of the Palace it

is necessary to say something of the works of reconstitution and restoration which have in this case been absolutely imposed on the excavator to an extent unparalleled in any ancient building.

The root fact in the matter is that we had largely to deal with upper elements, in some cases even belonging to a third storey, originally supported wells. Mixed in turn with the dissolved gypsum from the slabs that had originally coated the upper walls and slabs, and with other materials, this had become a solid mass of great supporting power. But, this once removed in the course of excavation to reach the ground floors, it is obvious that the remains of the superstructures would be

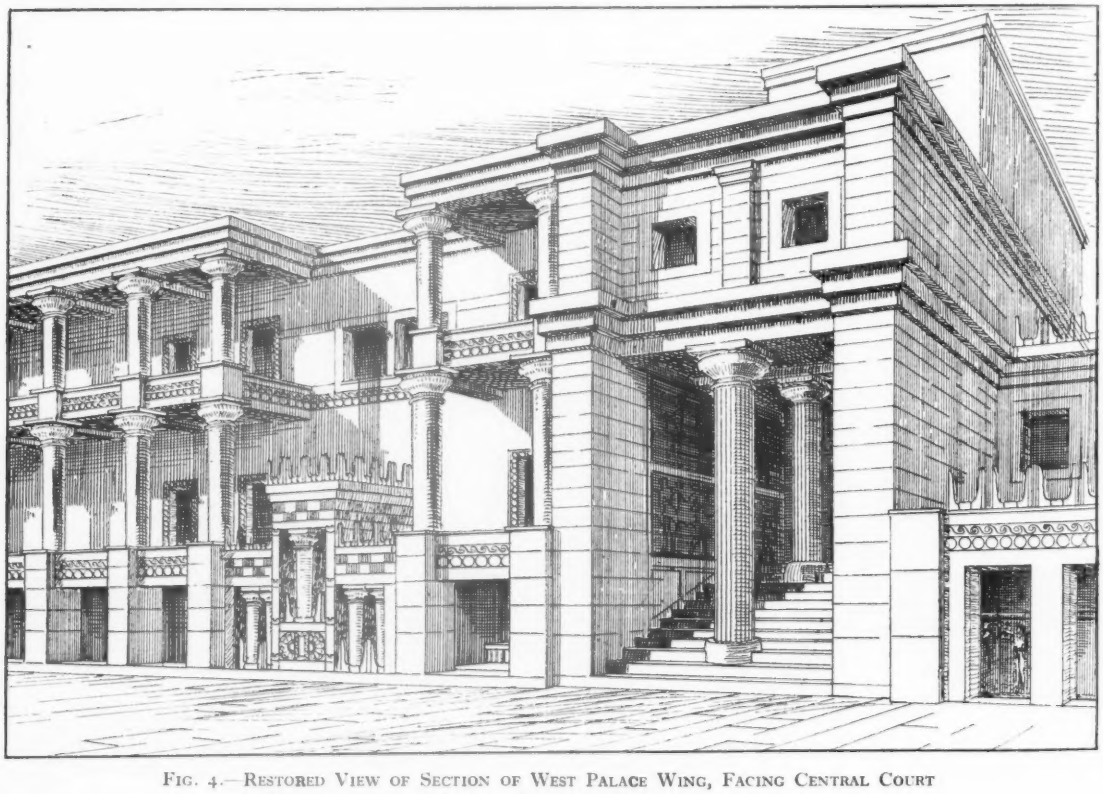


FIG. 4.—RESTORED VIEW OF SECTION OF WEST PALACE WING, FACING CENTRAL COURT
Showing columnar shrine and stepped porch. By F. G. Newton

for the most part by wooden beams and columns long since carbonised, but which, though often somewhat sunken, were found still at upper levels approximating to their original position. Among the special causes that had contributed to hold them up was the precipitation of the sunbaked bricks that seem to have been largely used for the uppermost part of the walls into the lower spaces, and the penetration of half-dissolved clayey matter under floor-levels owing to the system of light-

left in the air, and that, if they were not first re-supported in some manner, the whole fabric of the building that Time had spared would be reduced to an indistinguishable heap of ruins.

In the earlier part of the excavation an endeavour was made to grapple with the problem by means of solid stone piers and shafts of columns, supplemented by iron girders, but also by wooden posts and beams.

The colossal task before us presented itself in

its most extreme form in dealing with the grand staircase of the domestic quarter and its light area, the Hall of the Colonnades. Of the staircase itself remains of no fewer than five flights have been preserved. In the Hall of the Colonnades itself the balustrade on the north side was found as it were suspended almost at its original level, while the triple balustrade of the upper flight of stairs on the west side is seen to rest on a mass of clay and rubble, the supporting columns having been in both cases carbonised and disintegrated. It was necessary indeed to follow the downward course of the lower flight of stairs by means of a tunnel carried out with the aid of props and with all the precautions of mining operations.

These props made it possible to reconstruct, fitting them into the old sockets, columns built of stone and covered with plaster, subsequently coloured to reproduce the effect of the original Minoan columns as shown on the wall-paintings. The supporting beams were at the same time superimposed on these, in this case iron girders being supplemented by cement. The supporting wooden framework could then be removed and the staircase above left to rest securely on the restored beams and columns. Finally, the corner staircase column of the upper tier was also restored so as to make it possible—thanks to Mr. Christian Doll, and the practical knowledge of our foreman, Gregorios Antoniou—to set up at their original level the fallen stair-blocks above belonging to a fifth landing.

But the cutting out of stone shafts and capitals and the raising of stone piers involved a prohibitive amount of labour and expense. The iron girders brought to Candia by sea—some of them now lying at the bottom of the harbour—were both cumbrous and costly, and woodwork was found rapidly to rot owing to the violent alternations of the Cretan climate. It was only the adoption in recent years of the wholesale use of ferro-concrete that has made it possible to continue the work of conservation on a larger scale and in a more durable manner, and to rescue much that had been already done from the imminent danger caused by the rotting of the wooden supports. It has been thus possible to undertake a much more considerable work of reconstitution. The restoration of large areas of upper floors, incorporating at the same time the existing slabs and door jambs, has been much facilitated, and not only the wooden posts and beams but the shafts and capitals of columns have been reproduced in concrete, the exact dimensions being in many cases indicated by the carbonised remains.

In the course of a five months' campaign undertaken during the spring and summer of the present year, in which Mr. Piet de Jong, the architect of the British School at Athens, acted under my direction, it has been possible to carry out a very extensive scheme of reconstitution in the Domestic Quarter. The greatest of all the Palace halls—the "Hall of the Double Axes"—has in this way been entirely roofed over, the gypsum slabs of its floor and dadoes being thus permanently rescued from rapid disintegration due to exposure to the weather. The upper floor here, the original height of which had been somewhat miscalculated, has been restored at its original level, together with that of the adjoining spaces, so that the whole original plan of this level is actually rendered accessible.

In the walls above and below, the sockets left by the wooden skeleton of the fabric, and which in nearly all cases contained the carbonised remains of the wooden posts and beams, have been filled in with ferro-concrete, painted to show a conventional wood colour. The extent to which the wooden skeleton of these structures has been reproduced and perpetuated is well illustrated by the first covered section on the west side of the Hall of the Double Axes (Fig. 5).

The walls themselves have in this way recovered much of their original strength. At the same time in the light areas where their face was of ashlar masonry, the parts that it was necessary to restore have been supplied by blocks cast in wooden cases of the size of the original stone work.

On this side, too, the record of the painted stucco decoration has been preserved in its original position by careful replicas executed by Monsieur Gilliéron fils. The "Fish" fresco of the "Queen's Megaron" has been thus restored, and additional parts of the Spiral Frieze. Of special importance was the setting up on the back wall of the reconstituted lobby, opposite the second landing of the grand staircase, of a noble fresco of four large Minoan shields, the remains of which were found fallen into a neighbouring space. The shields appear on a broad spiral band answering to that which in the "Hall of the Double Axes" below runs above the gypsum dadoes. Here, on the wall of

the staircase lobby, we seem indeed to see the copy of an arrangement which was carried out in a more material form in the great Hall, the shields of Minoan warriors being in that case actually hung up on the line of the spiral frieze. This is in fact the arrangement of a Homeric "megaron."

before our eyes in a manner which can compare with what has been achieved at Pompeii.

It is my hope in the coming season to ensure the conservation of four of the best preserved magazines of the west quarter of the Palace by roofing them over, and to protect in the same way a con-

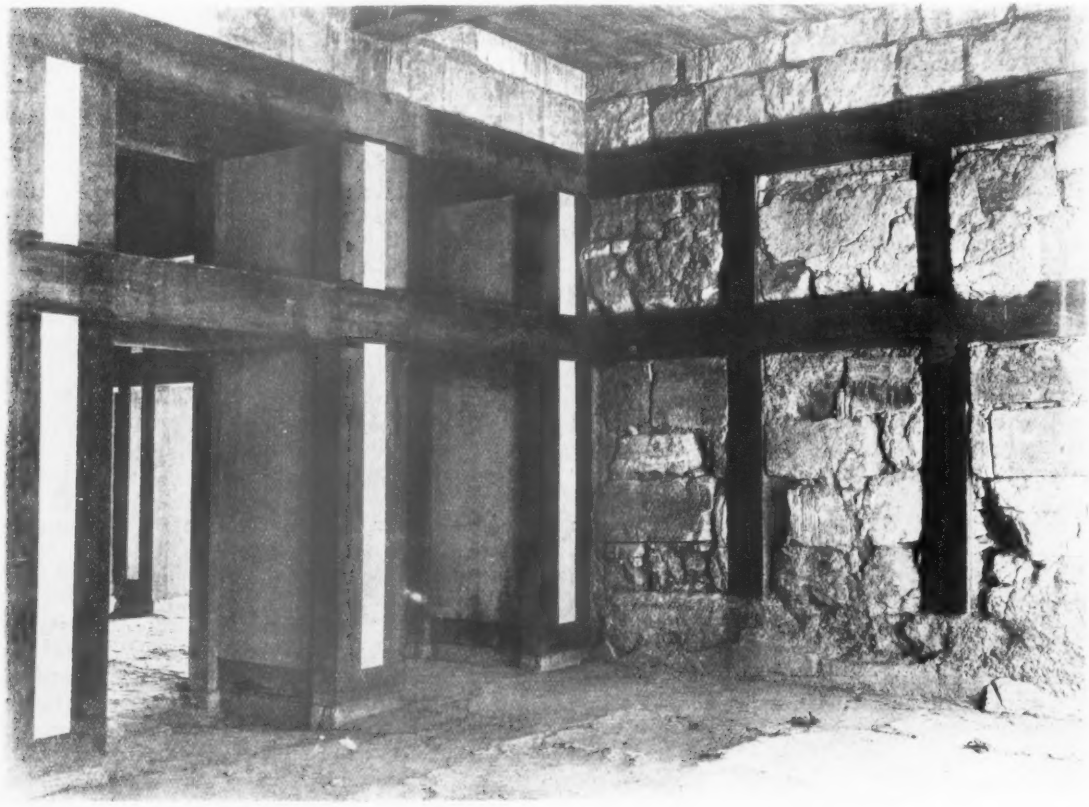


FIG. 5.—FIRST COVERED SECTION ON THE WEST SIDE OF THE HALL OF THE DOUBLE AXES AS RESTORED
Showing timbering of walls

The use of ferro-concrete has also secured interesting results in a series of private houses, including the South House (Fig. 6), the "House of the Chancel Screen," and notably the "Royal Villa," towards the re-exploration and reconstitution of which Mr. Theodore Fyfe was happily able to give his services last year, after too long an interval. The home life of the Minoans has thus been brought

siderable section of the Long Corridor. Mr. de Jong has also executed for me detailed plans for restoring the upper part of the north Lustral Area with its double flight of steps and colonnades. The need of protection here for the fine gypsum slabbing of the sunken basin and of other details is indeed most urgent, and the ritual structure here preserved is the earliest of its kind on the Palace site.

Something more, too, should if possible be done to restore at least some part of the upper elements of the adjoining North Entrance Passage, the most public and at the same time in many ways the grandest of the avenues of approach. Researches recently carried out in this area, and now embodied in plans and elevations by Mr. de Jong, show that here above the triple bastions on either side ran porticoes backed by magnificent friezes of painted stucco reliefs of bull-hunting and bull-catching scenes resembling those shown in repoussé work on the Vapheio cups. These great compositions, representing the acme of Minoan art, have now, as I have shown elsewhere, acquired a fresh interest from the evident parental relation in which they stand to two gypsum reliefs in the British Museum, obtained by Lord Elgin, as we now know, from the entrance of what was then called the "Tomb of Agamemnon" at Mycenæ. In other words, the sculptural composition that decorated the main entrance of the great Palace reappears on a lesser scale on either side of the entrance passage of a royal tomb on conquered territory, itself the mightiest sepulchral monument on European soil, and at the same time Knossian in all its decorative details.

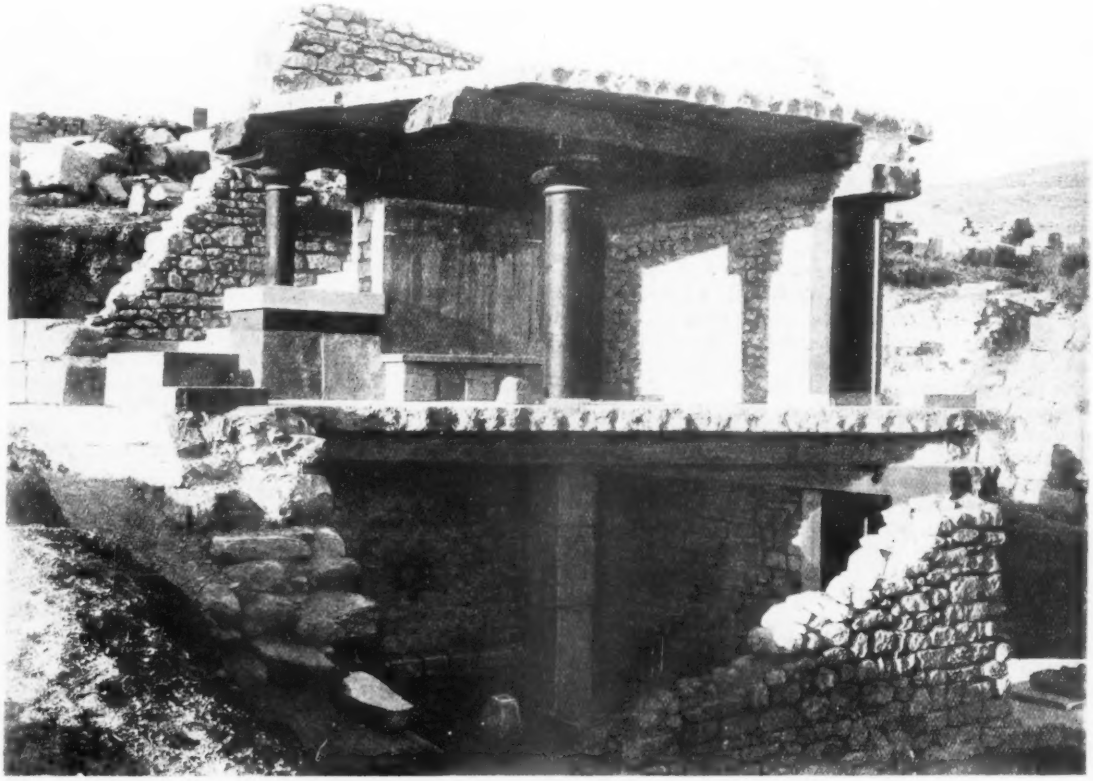


FIG. 6.—WEST SECTION OF SOUTH HOUSE RESTORED

(*Discussion Overleaf.*)

Discussion

THE PRESIDENT, MR. WALTER TAPPER, A.R.A., IN THE CHAIR.

Mr. R. BOSANQUET, F.S.A., in proposing the vote of thanks to Sir Arthur Evans, said :

Sir Arthur Evans has added new resources to the excavator's art, and it is alarming to reflect that he has immensely raised the standard of an excavator's duty. There was a time when a collector would visit an ancient monument, and pick out a pair of Assyrian bulls, for instance, just as a big game hunter takes a tusk or a pair of horns and leaves the carcase to rot. There then came a time when explorers, at any rate, took the pains to make reconstructions of whole monuments on paper. But Sir Arthur Evans has gone much further, and those who go to Knossos to-day can see that Bronze Age palace, at any rate typical portions of it, rising solid in three dimensions. It would have been possible for the explorers who spent a glorious picnic in extracting sculptured slabs from the ruins of Ægina, to re-erect the temple in much less than the twenty-eight years that Sir Arthur has spent at Knossos. His task was to deal with a congeries of perishable timber, blocks of gypsum, rubble walls, sun-dried bricks ; and yet out of that material, with infinite ingenuity and patient observation, and with the help of a team of young architects, he has produced the conclusive and convincing reconstitutions which we have seen.

Mr. THEODORE FYFE [*F.*], in seconding the vote of thanks, said : If one reflects, one can see it is a very high sense of the duty he owes to posterity that has made Sir Arthur Evans undertake these works ; because a little reflection will show that they have meant, as Mr. Bosanquet has said, a vast amount of patience and great attention to detail, as well as very much specialisation—though specialisation is really too narrow a word to include the reconstitutions which have been done by Sir Arthur. It is characteristic of his equipment and outlook that he has been an explorer all the time ; he has raised the whole art of excavation on to a higher plane. For the whole of the twenty-eight years since he began at Knossos he has gone on exploring, and he has made the re-constitutions an inseparable part of the explorations. The way he has travelled, despite his advancing years, from wood on to steel, and from the steel girder to ferro-concrete is very remarkable ; the Society for the Excavation and Restoration of Ancient Buildings could surely wish for nothing better. The President very well expressed at the beginning of the meeting our sense of how distinguished Sir Arthur is ; but it is the amazing constructive quality of his imagination and the width of his knowledge which have placed these things on a special plane, and made the whole Minoan civilisation in a peculiar sense alive to the whole civilised world. I do not think there is any excavation work which has been so splendid as this in its aliveness ; and that, as I say, is due to the quality of his imagination.

I am a firm believer in these re-constitutions. I know with what tolerance and sense of humour Sir Arthur has regarded certain criticisms, because it is possible to say that to interfere with an ancient site detracts from the sense of proportion which one derives from an untouched ruin or site. But Knossos is capable of holding its own undisturbed by these reconstructions of Sir Arthur's, and the intelligent tourist very much appreciates them, and is able to get far more out of the plan of the Palace because Sir Arthur has very largely restored the plan of it. He has shown us on the screen things which he has protected, but it is the plan elements which are now so much more alive. If one could imagine a ruin such as that of Tintern, containing unique elements and having a vault which had collapsed and was unique, it would be the least that an intelligent authority in this country could do to restore one bay of the vault, so that, properly protected from the weather, it would protect the nave below. It is something like that which Sir Arthur has done. But he has done much more, because he has put his own quality of imagination, by years of work, into reconstructing the Palace for us. Looked at broadly from that standpoint, he has preserved, let us hope for many years, portions of the Palace which would otherwise have fallen completely into decay.

Sir BANISTER FLETCHER [*F.*] : To architects, I think, the plan is the most interesting part of the wonderful palace, and when we realise that it was carried out about two thousand years before Christ, the degree of civilisation which had been attained is most remarkable. I think what remains most in one's memory is the Throne Room. You come down flights of steps, which are modern in character and excellently proportioned, and you find yourself in front of what is said to be the oldest throne in Europe. Another point is the complete system of drainage which I understand is still in use at the present time. I should have liked to see a completed plan of what Sir Arthur has done, for I think there must have been a wall around that Palace, and I have not seen, in any of his plans, that he has been able to find a surrounding wall. We know the Palace was not fortified ; there was no occasion for that, owing to the protection of a strong Minoan navy, but I should have thought there would have been an enclosing wall. To architects I think the most important feature one meets there are the

extraordinary columns. Why did they take that shape? In modern times we place the small diameter of the column at the top, and I have not yet heard any reasonable explanation advanced as to why they inverted their columns—as far as we understand that term.

Mr. CHRISTIAN DOLL: It is a long time since I was at Knossos, and what I have seen to-night on the screen has, in one sense, rather taken my breath away; and yet, in another sense, I can faithfully say that nothing at Knossos would surprise me, and nothing in Sir Arthur Evans' work would surprise me. The interest of Knossos is boundless. I was on one occasion there alone for thirteen months, and took parties round the site on an average twice a day, and I do not suppose that I ever went round the place without seeing something new. Every time that I had formed a definite idea as to the meaning of anything to do with the building, at the next visit I invariably found something fresh that totally upset that idea, and I had to start my deliberations all over again. Everywhere, for yards around, and close under the surface of the ground, there are antiquities. I dread to think what will happen when they come to excavate nearer to Sir Arthur Evans' house. I had the pleasure of building it, and it is built almost on the site of the classical Greek temple; I think the approach to the temple is outside Sir Arthur's kitchen.

I do not suppose there ever was a man with such a flair for this sort of work as Sir Arthur. Before you have half recovered some object, he will come to you and say "You will find so and so there," and every time it turns out to be so; he is never wrong. The one thing I am thankful for—and I have no doubt you are too—is that the work at Knossos came into his hands. If this place had been excavated by anyone less skilful, less patient, or less observant, I feel sure that we should not have learnt one-half of what we have learnt about it now. Sir Arthur has indeed made Knossos his life's work, and he has thrown himself into it heart and soul. Everything that he has undertaken there has been done with meticulous care, and no pains have been spared to see it through. I can safely say that no "find," however small, has escaped his notice or failed to receive its proper share of his consideration.

No doubt many of you object very much to restoration; I know that most antiquaries object to it; but it was impossible to avoid it at Knossos. If Sir Arthur Evans had not undertaken all this work of restoration and reconstitution, there would not have been much of the Palace left by now. Restoration has, in fact, been going on at Knossos ever since there was a building on the site, because the original materials were continually decaying, and means had to be found of keeping them together. The first trouble at Knossos was due to the use of gypsum. It was used because it was so conveniently found—it came from a hill known as Gypsades, less than 200 yards distant from the site—and it was used for carrying all the weights in the Palace. The gypsum would not stand, and the Minoans had to cover it with plaster. Then the superstructure, which was half timber work, began to go, and that had to be covered with plaster as well. The Minoans took to representing on the plaster what was underneath the plaster, and so you get these representations of timber framework, and the wonderful spiral designs, and the big spaces filled up with ornamental groups in fresco.

Another thing in regard to Sir Arthur Evans' restorations is that we have been able to make practical use of a lot of the original elements in the Palace, for instance, all the drainage system. The water supply was carried by means of terra cotta pipes, but the drainage system consisted of built drains, large enough in places for a fair-sized boy to crawl along. Wherever in the restoration work we have had to deal with the surface water it has been diverted to the old Minoan drains, and taken off in the original way by them.

Another thing is that—certainly in the part I had to do with, the eastern quarter of the Palace—we were able to learn much about Minoan means of measurement. This is a matter which has not yet been published, but before long we shall be able to tell you something tangible about that. I happened one day to find an old Cretan carpenter doing some work outside a house, and as I stood and watched him I noticed that he had no metre rule amongst his tools but that he used his fingers in a certain way whenever he wanted to take a dimension or to space out a distance. I asked Sir Arthur Evans' factotum, Manolakis, who was with me, the meaning of this and I was able to learn that amongst the older workpeople in Crete to-day there still survived a regular system of measuring by means of the hands. The system involved a series of three dimensions which upon examination I found to have a relationship to one another, and I think that we shall be able to show that this series of dimensions can be referred back to a similar series in Minoan times.

Dr. GEORGE A. MACMILLAN: I have had nothing to do with the work at Knossos, though once I was fortunate enough to be shown over it by Sir Arthur Evans, more than twenty years ago. My greatest privilege has been that of being allowed to publish the results, and it is a privilege I value very highly. We are looking forward to the appearance of his third volume, which, I understand, is well on the way towards completion. That book is one which, in the whole period of my experience, I am most proud to have been connected with.

Mr. E. J. FORSDYKE, F.S.A.: I should like to say a word in regard to the protective work. What Sir Arthur Evans has done is to build up the ground-floor walls to their original height, and to put a ferro-concrete roof over the whole. Instead of putting a plain roof, he has treated the roof as the floor which has been lost, and has put back in position on it such elements of the upper storeys as he was able to recover in the excavation. There are, of course, several other palaces in Crete, of which we do not hear very much; that is, largely, because they are disappearing. There is, for instance, the great Palace at Phaistos, on the other side of the Island, which was dug by an Italian mission, soon after Sir Arthur Evans began at Knossos. Phaistos lies on the top of a hill, and is a more showy site than Knossos. It is very picturesque in its mouldering antiquity, but is becoming less and less intelligible. These pre-historic structures are sometimes built of ashlar masonry, though seldom. More often there is a veneer, largely made of gypsum. The latter is a stone which, under the influence of sun and water, behaves like wood. Pavements were also made of gypsum, and since they were uncovered, after being buried for more than 3,000 years, their slabs have buckled up in curves. And when the slabs are set in a vertical position, as a veneer on walls filled with rubble, they buckle away from the wall, and the rubble falls into a mass on the floor. This is what is happening at most of the other sites. Sir Arthur has stopped the process of decay at Knossos, first by his solid constructions of ferro-concrete, and lastly by his recent act of liberal foresight, in handing over the Palace and his house at Knossos to the British School at Athens with an endowment, so that the conservation will be carried on, so far as can be seen, for ever.

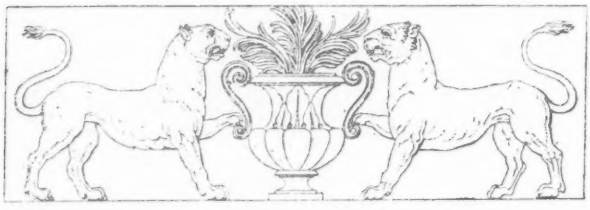
Mr. J. PENOYRE, C.B.E., also thanked Sir Arthur Evans for his Paper.

Sir HERBERT BAKER [*F.*]: I should like to ask Sir Arthur Evans a question on the structural side; the same as Sir Banister Fletcher asked, about the idea of putting the wooden columns upside down. Was it because the sap ran that way, and so they lasted longer; or that they made the bearings of the lintels shorter? Also, has he an opinion on the origin of the timber framing, whether it was merely an old tradition or a bonding together against earthquakes? And will he tell us whether there are remains of timber where it has lasted four thousand years, and whether he knows what the timber was? [Sir Arthur Evans: Cypress.] Also, what was the roof made of? Were all the slabs we saw in the slides restoration, or were any of them the original stone floors?

Sir ARTHUR EVANS: They were gypsum and partly hard stone. We have remains of ceilings in hard stucco with reliefs, stucco on top of the wood.

Mr. FITZROY DOLL [*F.*] also spoke.

The PRESIDENT then put the vote of thanks, which was carried by acclamation.



The Organisation and Equipment of American Buildings

Part II

BY DORIS ADENEY LEWIS [*A.*] [WINNER OF THE R.I.B.A. (ALFRED BOSSOM) STUDENTSHIP, 1926].

SECTION 4.—APARTMENT HOTELS.

The new building code designates as apartment hotel any building in which rooms are laid out in suites or apartments and meals are served from the main kitchen.

The first provision, in the case of the apartment hotel, as with the apartment house, is for light and air. The three-sided court plan has proved the most popular for this type of building, with room depth of 20 to 25 feet and 6 feet to 9 feet wide corridors. The apartments are worked out first, as in the case of the hotel plan, and the resultant building partakes of a curious mixture of hotel and apartment house. The public rooms present much the same problem as those of an hotel in their arrangement and equipment, but have an entirely different atmosphere. The entrance is less obvious, the lobby is replaced by a quiet, well-designed hall, and frequently the more public rooms are grouped upon an upper floor, as in the case of the Shelton, where the library and lounges are on the first floor and the dining room is tucked away at the back of the plan on the ground floor.

The Shelton has more perhaps of the club atmosphere than many apartment hotels, as it was originally intended as a club for men, and is very complete with its pool, racquet courts, gymnasium, terraces, etc.

The newest interest in this type of building is probably the arrangement known in America as "efficiency planning." This has been defined as the arrangement of comfortable facilities for living within comparatively confined space. Thus a one-room apartment is provided which has the facilities of living room and bedroom in the same space, with bath, dressing and kitchenette as a complement. Efficiency planned apartments are comparatively new in New York and the Eastern States generally, but they have been long accepted in principle as a solution to city dwelling on the western side of the American continent.

The tenants of an apartment hotel such as, for example, the Park Hotel in Toledo, appear to be ready to pay a very high price for small space, provided that the space constitutes an efficient and attractive home, easy and pleasant to live in, with a large portion of the domestic problems solved through the ingenuity of the planning equipment and service.

The space problem has been still further assisted by the introduction of concealed or wall beds which shut away in the daytime into a well-ventilated cupboard, thus leaving the greater part of the room free for use as sitting room or studio. This large room is, as a rule, provided with a wood-burning fireplace, with special box for wood, as well as central heating, built-in furniture, and either a dining or kitchen-and-dining room combined. In this arrangement the stove with solid washable top is frequently placed in a ventilated tiled cupboard with glass doors, the vent shaft being connected to the main shaft of the building. In this way all odour of the cooking is kept out of the apartment. Of course, all the furniture of the kitchen and dining alcove is entirely built in. Sufficient accommodation is given for cooking and preparing a meal for several people, and all conveniences are included, such as refrigerator, built-in ironing equipment, a lavish assortment of electric points and either an incinerator or chute to the main incinerator of the building, the latter being the most popular, as it takes up less space and is the most efficient, keeping all odours of the burning rubbish away from the tenant. The rubbish is usually wrapped in paper and dropped into the chutes, and therefore all necessity for a garbage pail is avoided.

The large apartment kitchens, usually of long and narrow type, about 16 feet by 8 feet, are provided with ample glass and china cupboards, usually of metal with glass doors, invariably white, combination tubs and sinks of white porcelain with metal draining boards, or sinks with draining boards of porcelain. These are cast in one piece and built in to avoid any possible cracks and crevices which might possibly hold dirt. Every possible attention and consideration seems to have been given to the kitchen and bathroom departments, so that even the smallest details look well and are easily kept clean.

In the case of apartment hotels the laundry is usually done by the management, and the laundry is similar to that of an hotel. The same may be said of larger apartment buildings, but in the less expensive apartment groups a laundry with complete equipment is provided for the tenants in the basement of the building together with a range of drying rooms.

The kitchens are similar in arrangement and size to those of an hotel, but room service being of paramount importance, the service pantries and lifts are larger and more numerous. The goods are taken by service lifts from kitchen to floor pantry, thence to kitchenette by dumb waiters from which the meal may be served by the hotel staff. The public dining rooms are, of course, considerably smaller, and it seems difficult to find any rule as to their size, but the general practice is to arrange for the accommodation of all the tenants—not including guests—in the dining room at one time. Many apartment hotels, though private in all other rooms, provide a cafeteria or buffet to which the public is admitted; this is more generally the case in smaller towns, such as Cleveland, Toledo, etc.

The apartment hotels differ from the hotels principally on their ground floor plan. The lobby shrinks from the vast hall to a small foyer with small porter's room and unobtrusive office for keys. The ball room, if there is one, has a separate entrance, and is so placed that the music will not be heard in other parts of the building.

The lower floors of an apartment hotel are frequently arranged as suites for doctors or as professional offices.

Nearly every type of building is provided with a central vacuum plant; this does away with the great problem of getting rid of the dust collected by individual systems,

and the pipes can generally be accommodated on the duct floor, as was seen in the Pennsylvania Hotel.

Cupboards are more lavishly provided in apartment hotels and apartment buildings than in any other type of building, and most of those inspected had, beyond the cupboards usually accepted in this country, a cedar cupboard for storing woollen and fur coats, a cupboard to take a steamer trunk, the upper part of which is used for smaller luggage, a store for sewing machines and a linen cupboard. A small cupboard off the kitchen for the use of the service maid is more rarely introduced where space will permit. The size of the apartments varies and they are usually arranged so that they can readily be increased from suites of three rooms to eight rooms. The bathrooms and kitchens are very highly organised, and all rooms are provided with at least three or four electric outlets, in dining rooms for toasters and percolators, in bedrooms for reading and mirror lights. Radiator boxes have become a definite part of the room furnishing, usually in metal and wood work. Very little has been done in experimental decorations. The most venturesome colour schemes are in apple green, but greys and fawns are the most popular.

Section 5.—Construction

The architect's drawings are completed under the supervision of various specialists who come upon the scene at the very beginning to handle their particular services, steel, heating, plumbing, and so on. The foundations are frequently proceeded with before the general drawings are near completion, and very often before the elevations have been more than contemplated. The masses are largely decided by the zoning laws, which dictate to a large extent the treatment of the elevations, which in the early stages are often worked upon by means of models. The steel or concrete frame is erected with its floors, in which provision has been made for stairs and lifts, and voids are left for the various services according to the indications on the many blue prints of the equipment specialists; and so, as the frame of the building rises, the equipment follows usually only a couple of floors behind. On the completion of the frame of the building, the heating, plumbing, ventilating, electric light, telephone, vacuum cleaner, sprinklers, etc., are all in position. Temporary strutting is used to keep the conduits in position, and the whole equipment is finished and inspected before it is covered in. With this method there is no making good after the various trades.

The filling in of the exterior is as a rule carried out in order, working up storey by storey, but it is not an unheard-of thing for a floor half-way up the building to be finished and working to oblige a particular tenant, while many of the lower storeys are still in the steel frame condition. This is not a difficult matter, as the walls of these framed buildings are built with each floor comprising its independent section of walling resting upon its own part cular girder and thus forming an independent panel. The average facing is 4 inches brick with an eight-inch backing of terracotta tile. At each girder a special stepped tile occurs with a seating for eight inches of brickwork and 4 inches of tile (bricks are 8 inches by $3\frac{3}{4}$ inches by $2\frac{1}{4}$ inches), thus breaking bond and forming a tile extending to within 4 inches of the wall face. Over this line of stepped tile a damp-proof course of asphalt occurs to protect the floor. This occurs at each floor level, and prevents damp from penetrating the building from the top.

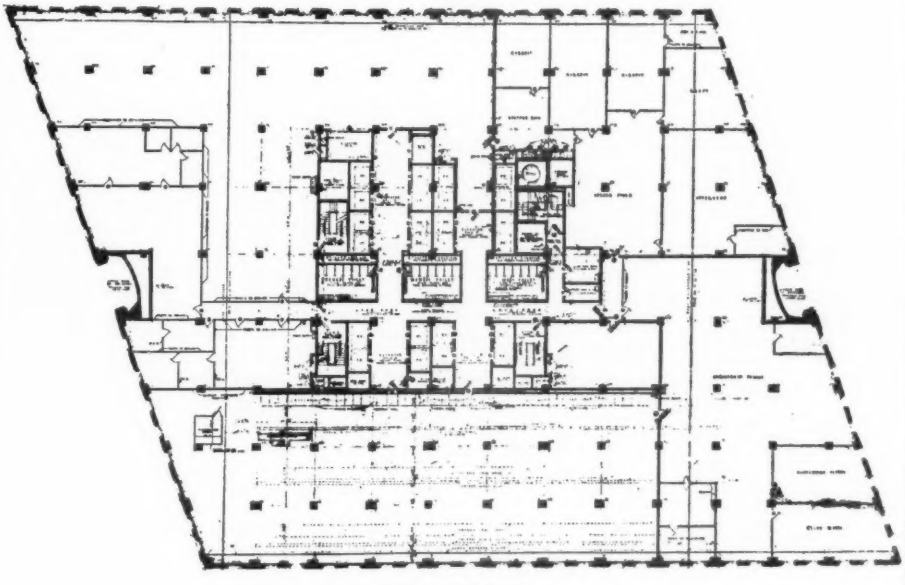
The Barclay-Vesey Telephone Building on Lower Manhattan Island may be analysed as a typical building of most up-to-date construction. It comprises 17 storeys

The Barclay-Vesey Building, New York.

By McKenzie, Voorhees and Gmelin

and two mezzanines covering a parallelogram about 212 feet by 255 feet surmounted by a tower 108 feet by 116 feet of 15 storeys and one mezzanine. The 17th mezzanine divides the entire building into mechanically independent units which can be operated separately or together; this mezzanine has really the function of a basement for the tower and contains, with the exception of boilers and pump, all the equipment normally found in the basement of a building of this description. It also contains the normal roof equipment of the lower portion of the building.

SEVENTEENTH FLOOR PLAN



SECOND FLOOR PLAN

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

McKENZIE, VOORHEES & GMELIN, ARCHITECTS

Mechanical equipment is by-passed so that while under usual conditions the base and the tower are separately operated; in emergency substantially all the equipment can be combined or the equipment of the tower portion can temporarily serve the tower section without interfering with the operation of the entire building. A basement was developed as an extra high storey to permit pipes and ducts to be run near the ceiling and still obtain adequate head-room for the kitchens. The services include provision for wet and dry cleaning, lighting and ventilating, and facilities for recreation and rest. The kitchen serves both dining room and cafeteria, and a special feature of this department is the use of hoods made of wire glass set in non-corrodible metal frames. Ventilators are placed at all ranges.

The Telephone Building contains 850,000 square feet of usable floor space and took from June 1923 to February 1926 to build. It is designed to house more than 6,000 people, and has a lift system arranged in such a way that it is unnecessary for any passenger to transfer more than once to get to any part of the building, regardless of the floor he happens to be on. There are two banks of eight cars each, running at 800 feet per minute, with full automatic control of the machine and pneumatically operated hoistway and car doors, which serve the upper portion of the building. The only manual operation of these cars consists in pressing buttons which actuate the closing of doors and the starting of the cars. They have micro-levellers which level the car at the floor and keep it there so long as the doors are opened.

The lower portion of the building is served by two banks of four elevators run at 600 feet per minute and a full automatic push-button elevator running from top floor to the roof and observation galleries.

The system is operated by a "despatcher" whose office is adjacent to the main entrance corridor; this room is provided with complete control board with signals indicating the exact position and direction of each car and a device to show whether they are running to schedule. The "despatcher" has complete control of the whole service, with the exception of starting and stopping, and the elevator operator is kept advised of the position of his car by an indicator. The signs arranged to indicate bank or banks of elevators change automatically when any alteration is made in the running of the service.

The electrical equipment includes besides the elevators, direction signs, light, ventilating fans, pumps, vacuum cleaning, heat control and communication systems. In addition there is electrical office machinery for tabulating bookkeeping and for photography. From the service entrance in the basement, current, light and power pass through the necessary switches, fuses and meters, to the top of the building through a conduit, and slate barriers at each floor and at other levels prevent the bars from coming in contact with each other. The wiring lay-out for the whole building is generally uniform, with the outlets placed off the centre of column faces in anticipation of office partitions.

It was estimated that one telephone would be required for every 60 feet of rentable area. A half-round fibre duct system in the form of a gridiron was laid with the top about $\frac{1}{2}$ inch below the finished floor and the wiring system was laid in this wherever necessary after the floors were put down. Telephone distributors were placed centrally to serve all areas.

All the drainage is confined in the core of the building, which necessitates off-setting the main pipes at various levels to reduce the velocity of flow and possibility of high impact on the lowest fittings. Roof drainage is separately connected to prevent possible flowback due to high pressures. To produce uniform heating throughout the building, cognizance was taken of the chimney effect and increasing wind velocities at higher levels, and again the building was divided into three horizontal zones. Lavatories are ventilated by using the plumbing shafts as ducts and the air is discharged at the 32nd storey.

Cool drinking water is pumped to a supply tank in the 32nd storey, from which it drops down through the supply risers and is cross-connected to tanks on the 17th floor, mezzanine, 8th storey and pump room in lower basement. There are pumps in this basement to keep the pressure at the drinking fountains within satisfactory limits.

In designing the fire-extinguishing equipment the old buildings surrounding the site were considered as well as ships in the ferry and steamship docks on the water front. To eliminate from the building a possible fire hazard, a 3-inch gas main extending from the basement to the roof is situated in an open air shaft, and the possible fire hazard of pipe shafts is reduced to a minimum by surrounding all combustible pipe covering with $\frac{1}{16}$ inch asbestos sheeting and covering all fittings with fireproof and waterproof cement. The stand pipe equipment, divided into four sections, fed from gravity tanks, is sufficient to fight serious fires in any of the structures in the vicinity of the Telephone Building. The interior fire alarm system is connected with the pump room and the city fire headquarters. In the pump room is a "ticker tape" as well as an audible alarm. Automatic sprinklers supply the five basements from two city mains; above the basement the only sprinklers are in the blue print room on the fourteenth floor.

All this complicated equipment is hidden within a casing of great simplicity. The soft brick, the carefully considered offsets with their shadows and the simple rhythm of the window spacing give the building a solid, restful appearance, which is greatly helped by the careful placing of ornament and the stone carving in flat relief of naturalistic subjects placed round the doorways and windows on the lower storeys and between the pinnacle-like piers on the upper blocks of the structure.

It is by far the most impressive building of "down town" New York, and the entrance by means of a corridor straight through the heart of the building is not the least interesting part of this complicated structure. It is finished in coloured marble and stone with bronze door panels and radiator grilles and has a coloured plaster ceiling with decorative panels lit by indirect lighting. The lighting is assisted by great decorative hanging lamps of metal suspended by chains. The detail both inside and outside of the building has distinctly the same character.

Another office building of fantastic size is the Greybar Building which has only just been completed. It is not only the largest office building above ground in existence, but also forms the eastern entrance to the Grand Central Station, New York. Standing between 43

GROUND FLOOR PLAN

FOURTH FLOOR PLAN

GREYBAR BUILDING. By Sloan and Robertson

and 44 Street on Lexington Avenue, it occupies a site 248 feet 8½ inches by 275 feet, with a 44 feet concourse leading directly to the main concourse of the station; besides this it has direct carriage access from Depew Place to its elevator lobbies. The plan is H-shaped above the second floor; the building contains thirty storeys, and the total rentable area is over one million square feet.

It is, again, a steel-frame building faced with brick buff gray in colour, with dark brick between the window head and sills, giving a towering effect. The first three storeys are of Indiana limestone, with the entrances marked by colossal statues representing the elements of earth, water, fire and air, and two others over the centre door representing transport and electricity. This building, like the Telephone Building, is the head office of an electric company—The Greybar Electric Company. The great concourse is walled with Sienna and travertine stone, with a groined vaulted ceiling. The floor is Roman travertine especially selected for its non-slip qualities. From the building there is access to four of New York's largest hotels—the Belmont, the Biltmore, the Commodore, and the Roosevelt. This great building was designed by Sloan and Robertson and built by the Todd, Robertson, Todd Engineering Corporation.

In contrast to these plans, which are so greatly influenced by the zoning law which enforces set-backs at certain levels, is the Buhl Building in Detroit, whose plan takes the form of a cross. This is a 26-storey structure, with a framework of steel and combination steel and concrete floors. The exterior is faced with terracotta, specially cast and laid in random sizes with a granite base. The terracotta does not presume to imitate stone, but has a texture of its own giving a very pleasing effect. The unusual cross-shaped plan has been adopted to eliminate courts and create a greater number of corner suites. This arrangement greatly assists lighting, as every room becomes a front room with a generous supply of light and air.

The "service" of the building is situated at the crossing and includes twelve high-speed elevators similar to those in the Telephone Building, arranged in two groups of six for local and express passengers, two fire towers extending throughout the building, lavatories for both sexes, store cupboards, hose cupboards, meter rooms, mail chutes and fire alarm boxes. The arrangement of the offices is quite separate and does not in any way affect the service portion of the building. Although the Buhl has not a "set-back" on any face, it has the appearance of a tower, a form occurring more and more frequently in the architecture of the United States.

The treatment of "set-backs" is one of the most interesting architectural developments in the United States, but the measure was passed purely as a utilitarian protection against undue congestion and for the purpose of providing light and air in the lower rooms of the towering structures. And even with this arrangement rooms in the lower portion of many of the world-famous skyscrapers require artificial light even at midday. The rules adopted to limit the height were based upon the widths of the streets. It can be seen that, as a building projects upwards beyond established heights, it must assume a pyramidal shape, and it is obvious that beyond a certain height such a shape may become commercially impracticable. The architect works to this stage by means of diagrams and, having found where the set-backs can be placed, proceeds with the work by means of models.

The usual procedure of the architect of an office building is in fact to find a site, with or without a client, and in order to show whether it is financially feasible to build upon that site, to find the relation between the square foot of rentable area and the cost of producing that area. These first approximations are figured in terms of cubic contents, and calculations on a large number of office buildings show that 16 cubic feet of area is required to produce 1 cubic foot of rentable space.

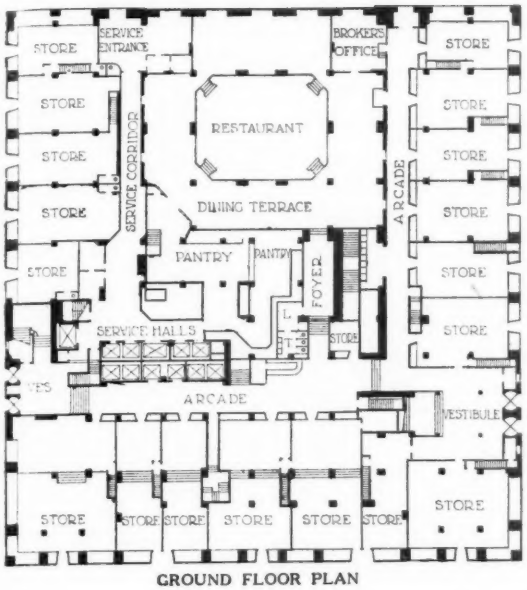
The next step is to look at an already complete building in the neighbourhood and, from its general present character, judge the future growth and the grade of building which it will be best to erect in the locality—viz.:

$$\frac{\text{Rent 1 sq. ft.}}{\text{Cost 16 cubic}} = \text{Gross return on investment.}$$

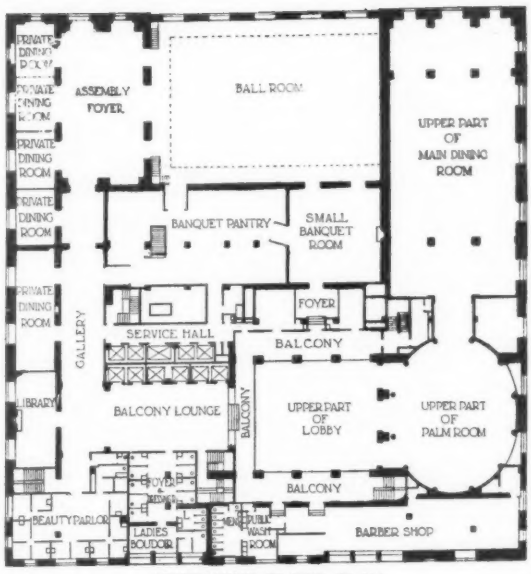
Like the hotel, the typical floor plan is studied first and the typical floor planned on the typical office unit. The ideal depth for an office unit is 20 feet, but most economical engineering consideration suggests a unit of 22 feet by 15 feet.

The "dark" spots on an American office plan are used for services, such as lavatories, elevators, stairs and smoke towers. The lavatories have artificial light and ventilation and are grouped on every floor, and wash basins are arranged in every office. The staircases are used for floor-to-floor traffic and are only considered as fire escapes, and are never a conspicuous or even visible feature. Dark spaces are always utilised for stairs, but these stairs do not enter into the arrangement as do lifts. These are the real means of vertical circulation, and their position on plan is absolutely vital. Lifts are essentially an American development, and their use is universal; they are sometimes regarded as essential even in a two-storey building. They are the key of the plan, and they also limit the area over which a building may be developed. They are always grouped because their efficiency is thereby enhanced. The ideal arrangement is a battery of elevators, three facing three, so that the passenger may readily step to the first one that flashes a signal. As the problem increases so the number of elevators increases, and as the building increases without the ground area becoming any larger so the problem becomes more difficult, until one finds in one battery numbers too large for one battery—as in the case of the thirty-four elevators in the Greybar Building. The problem then becomes one of two buildings, one on top of the other with the elevators running express through the lower building to serve the upper one. Freight elevators in office buildings are considered necessary and are placed near the main group, and are usually well finished enough to be used in case of an emergency or during rush hours.

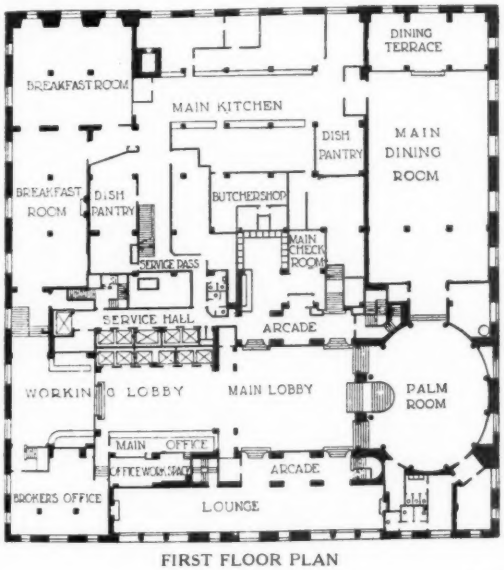
Quality of light is considered more important than quantity of light, as too great window areas greatly increase the heating difficulties. The average building has basement and sub-basement, but buildings in important positions often have as many as five basements. The Telephone Building is an example of a building with five basements, practically the whole of these being in use.



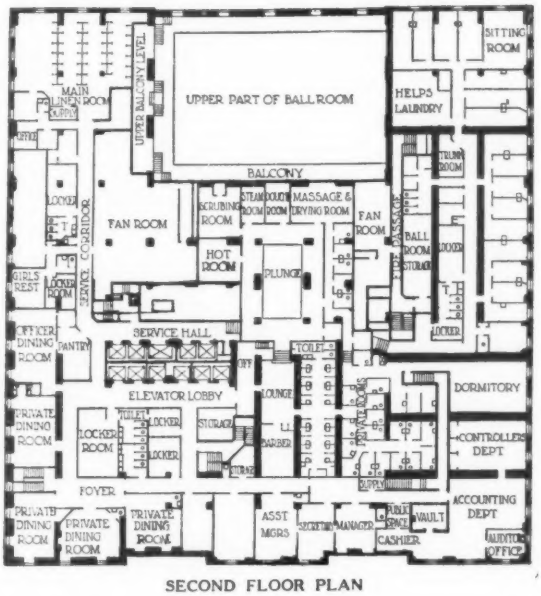
GROUND FLOOR PLAN



MEZZANINE FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

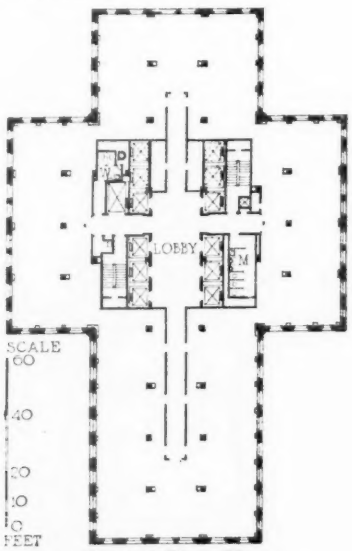
HOTEL ROOSEVELT

The window problem presents special difficulties and, as it has been seen, the minimum area has been considered the best. In the lower storey it is the usual practice to develop show windows with the minimum amount of pier; the steel is almost invariably cased in some hard material, such as granite, for about 5 feet to protect it

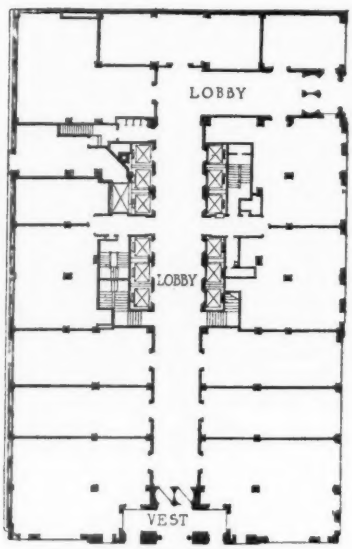
BUHL BUILDING. By Smith Hinchmen and Grylls. Elevation

from the passing public. The narrow piers are frequently covered with a material of a dark colour so as frankly to make a dark base—assuming the glass appears dark.

There is a growing tendency among the owners of the buildings to encourage their architects to break away from the stock details of equipment, encouraging instead especially designed objects, such as elevator doors, letter boxes, notice boards, elevator car, lamps, etc., resulting in such interesting examples as are found in the entrance corridor of the Telephone Building before mentioned, and in the equipment of various buildings in the " Garment Centre " by Buchman and Kahn.



Typical Floor Plan

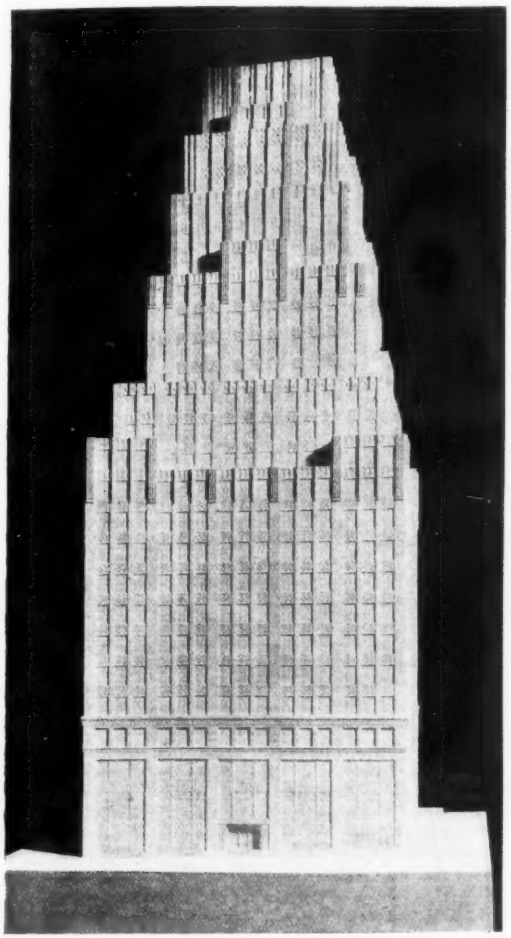


Ground Floor Plan

BUHL BUILDING

The lobbies, not only in hotels but in all kinds of American buildings, are excellent; it is considered

desirable to show the best the building can afford at the entrance. These entrances and lobbies are generally of polished marble or imitation marble simple in colour and simple in design. Travertine and terrazzo is often the floor covering adopted. The elevators are frequently in lobbies on either side of the main entrance lobby, and it



MODEL FOR BUILDING IN NEW YORK
By Buchman and Kahn

is now becoming the practice to " build-in " the news, cigar stands, etc., so that they may be convenient without being conspicuous. The lobby of the American Radiator building, by Raymond M. Hood, is a pleasing example of black and gold marble, with a floor of marble in tones of yellow and black; while the Cunard building, by Benjamin Morris, with its large square vestibule, serves as a fine example of the use of travertine. Solid metal doors are invariably adopted for elevators.

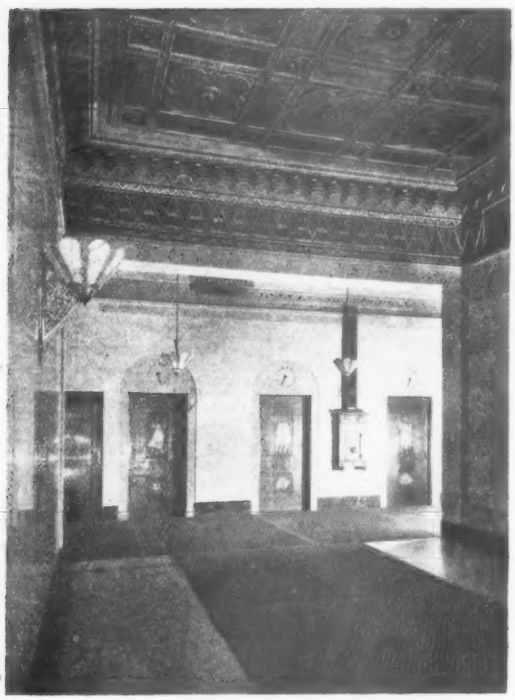
The interiors of many of the offices are most carefully decorated and form quite an important part of the architect's problem. This interest in decoration is spreading beyond offices to buildings of even the factory type, as was seen in the new laboratory designed by Albert Kahn for Henry Ford, a few miles outside Detroit, where the

WAREHOUSE. By Buchman and Kahn

workmen stand upon a polished parquet floor to attend their machines, and where the walls are worked out in a colour scheme.

The description of the Telephone Building has dealt so much with equipment that it seems hardly necessary to enter into a description of the equipment of buildings in general, but it is of interest to note that the heating system now generally adopted is the two pipe, low pressure vacuum system, with radiators under windows, either on legs or wall hung. It has been adopted as a result of its

quick and effective steam circulation, the smallness of its pipes and general quietness. These may either feed up or down, as was seen in the Telephone Building, where some of the basement services were placed halfway up the building. In buildings covering an area of over 200 feet by 200 feet the heating mains are usually sectionalised to apportion the heat and not to necessitate shutting down the entire building for repairs. Ample radiation is adopted for lobbies or vestibules, but it is not the usual practice to place radiators in corridors unless they terminate in windows. Ventilation is not provided to any great extent in buildings designed for offices, except, of course, in



ENTRANCE TO AN OFFICE BUILDING. By Buchman and Kahn

lavatories and basement sections. Safe deposit vaults are specially well ventilated, usually by a pressure fan system with the addition of oscillating fans. In the case of a single occupancy, where large staffs are accommodated on one floor, special ventilation is provided.

Temperature and humidity control is still confined to theatres and buildings of that class, and although cooling systems have been contemplated for structures for large corporations, it has not yet become common practice. Occasionally, if a building is situated near a large central heating plant and steam rates are economical, steam service is brought from the plant, but generally office buildings have their own boilers with power-driven pumps. Boilers for large office buildings are generally of steel shell, water or fibre type, either brick set or portable, in battery formation. Both hand and mechanical stokers are used for firing, and both coal and oil fuel is popular.

Wash basins are usually provided in the offices, one to about every twenty persons, and it is considered bad practice to group more than fifteen water-closets together.

Reserve water in tanks is maintained for fire purposes and hose racks are grouped round the escape stairs. The fire-resisting precautions adopted in the Telephone building are typical in a greater or lesser degree according to the size of the building.

Direct electric current is usually available, and the transformers for small installations are usually situated in the companies' poles, and for large installations they are placed in transformer vaults arranged inside the building and are provided in this case by the owner of the building. These vaults are drained independently of the building or sewage system. In large developments the electrical energy is generated in the building, as it can frequently be manufactured more cheaply than it can be purchased, and this service is considered more reliable.

A small motor generator is usually installed for each elevator machine or group of machines, which operates continuously and delivers current to each individual elevator machine. The method avoids the noise of the machine driven on current delivered to the building. This also applies to ventilating fans, slow-speed fans with direct connected motors being found to be practically noiseless. The elevators are arranged in such a way that the entire building can be emptied in 45 minutes in case of a panic, and this can only be accomplished by having elevators of speed varying from 500 to 750 feet per minute and with full electrical control. In the ordinary way a passenger should not have to wait more than 20 to 30 seconds for a car. The machines are placed at the top of shafts, and ample space is left for controls and signal apparatus. The safest high-speed elevators are considered to be the gearless traction type. In larger groups of elevators are indicators which show by a small light the progress of the car from floor to floor. The public follow the operation of this dial and place themselves at the car ready for entrance. Instead of the control system described in the Telephone building a starter is employed in smaller buildings to control the elevators; he has a telephone and a "call-back" system to each car.

The elevator system represents from 8 per cent. to 10 per cent. of the whole investment, a surprising fact when one learns that the electric lift was only introduced in 1889. The earlier designs were of the drum type with a winding cable, but as the height of buildings increased these winding cables took up too much valuable space. This cumbersome arrangement has now been replaced by various types of electric traction elevators where no winding cables are used, giving the elevator the freedom of unlimited rise. The elevator, with its simplicity of control and manufacture and unerring efficiency, has made possible the American tower building of the present day.

The Arts and Crafts Exhibition of 1928

BY C. F. A. VOYSEY

[*We have already published an article on this subject by Mr. F. R. Hiorns in our issue of* 10 *November, but in view of Mr. Voysey's being a pioneer in the Arts and Crafts Movement it is thought that his views on contemporary products may also be of interest to members*]

Much credit is due to the hangmen who have produced so pleasing an exhibition as is now to be seen at Burlington House, out of such a heterogeneous mass of arts and crafts objects. A conglomeration of so many different things demands a careful inspection and well deserves it, although it is somewhat fatiguing to have to recall the technical possibilities and limitations of the varying processes at one and the same show. It is pleasing to note in this exhibition a greater restraint over the tendency highly to french polish furniture, of which there are many beautifully designed and excellently made examples. In spite of the great charm of the Barnsley furniture, one striking piece, No. 473, a chest, exhibits the serious fault of needing a vacuum cleaner to keep it clean. So, for so splendid a designer to have thrown over his principle of fitness is quite amazing. As mitigation of this offence, see Nos. 426, 436, 449, 482, and 493, all most excellent in their way and nice to the touch, as well as to see, and quite easily kept clean. The Barnsley brothers have set an example that has been very happily and skilfully taken up and carried on by Ambrose Heal, Gordon Russell, and others.

The technical excellence in the workmanship of to-day is as good, if not better, than it ever was. But in design it is easy to find examples of excessive exuberance, such as the inlaying of mother of pearl on wood already beautifully figured by the Almighty. And there are still too many examples of lovely woods tortured by being bevelled and cut into varying planes one above the other, adding confusion of form and light and shade to what Nature has already decorated.

It is difficult and dangerous to mention names because omissions by implication may seem to mean more than they should. But F. Dagley's oak tallboy, No. 24 in the catalogue, and, especially Mr. Ambrose Heal's secretaire, No. 77, deserve the highest praise. Mr. G. Romney Green's table, No. 91, Mr. Gordon Russell's cabinet, No. 107, Mr. Edward Barnsley's table, No. 138, and Mrs. T. Coetzer-Steyn's mahogany table cabinet, all are most praiseworthy. Both Sidney and Ernest Barnsley have beautiful and interesting examples, though now and then over-decorated and fidgety. Mr. Eric Sharpe has a pleasing armchair, No. 472, which is easy to sit in and pleasant to the touch.

There are many fine examples of illumination, writing, printing, and heraldry designed by Kruger Gray. As usual the work of Graily Hewitt is superb. And there are others nearly as good, such as Dorothy Hutton, Mary H. Robinson, Louisa Puller, Rosemary Ratcliffe, Louise Powell, A. J. Fairbank, and others.

Macdonald Gill's painted map of Westminster is a fine example of his usually interesting work and very pleasant in colour.

Douglas Cockerell shows many quite excellent samples of binding. But Case No. 163 is full of bound books, horrid in colour, and with forms devoid of meaning. On the whole the binding does not seem as generally good as it was some years ago.

Graily Hewitt's "Bodleian Catalogues" is a fine example of printing; also C. H. StJohn Hornby's "Don Quixote." Indeed, all in case No. 195 are good.

It is a pity W. Bainbridge Reynolds has only one example of his work which, however, is the processional cross in silver for King's College, Cambridge, and very dignified and beautiful it is.

Among the jewellery, "Love-in-a-Mist," by G. C. Gasken, and the brooch and necklet by the same author, are lovely in colour and delicate in design.

Most of the silver work is unsatisfactory in design, though much of it is good in execution.

There is very little executed stained glass, but three examples must be mentioned. They are Miss Edith Langley's "St. Joan," which is delightfully flat and has the white marginal line. Donald R. Milner's "Ducks," and Rudolph Pickles' stained glass panel.

There are a great number of cartoons and scale drawings all exhibiting the same faults, one of which is the omission of the white marginal line which in the best periods was always used to separate the coloured glass from the tracery, without which line the tracery is made to look less strong. The other fault is the rounding and shading to give an effect of solidness, both to figures and draperies. The primary quality of stained glass is its translucence, and that quality is lost by making objects look solid. Also it is very important to preserve the window, taken as a whole with its tracery, as being on one plane only. But when Joseph E. Nuttgen's design No. 505 shows the figure of Christ in the middle light while His outstretched hands are in the adjoining lights on either side, the effect thus given is of a traceried grill standing in front of a big picture and hiding some of it. It is a very common fault to carry on the same design in many lights and ignore the structural value of tracery.

R. A. Bell and George Kruger Gray have very interesting and pleasing cartoons. And in the same gallery the late Arthur Gaskin's lovely book illustrations must not be overlooked.

The Gallery IX, devoted to manufactured fabrics, the reader is advised to pass by, for they are all repellent to the touch, depressing in colour, and maddening in pattern.

Reviews

THE AMERICAN ARCHITECTURE OF TO-DAY. *By G. H. Edgell. 4to. London* [1928]. *Charles Scribner's Sons.* 25*s.*

Professor Edgell has written a very comprehensive review of the development of modern architecture in America. Beginning with historical references to the first colonial buildings, he traces briefly the outlines of architectural history until the year 1893, when the subject of his book properly begins with the Chicago Exhibition. From that time onward the story is one of a series of triumphs for the architect which has no parallel in other countries during the same period, and the note of pride that runs through the book is one that is quite justified by events.

Mr. Edgell makes an interesting point in connection with the numerous great exhibitions that have been held in America since Chicago. He says that they have exerted a vital influence on the progress of architecture, teaching the Americans how to conceive in a big way, and how to plan their buildings in a happy relation to each other. Be this as it may, there is no doubt that the enthusiasms awakened by the combined efforts of the best artists in the country have been kept alive and carried on into ordinary practice with the great results we see to-day.

Considerable attention is given to the Spanish influences so apparent in the work being done in the Southern States. This happy development is largely due to Mr. Goodhue, whose successful use of this manner in the San Diego Exhibition gave a great stimulus to a style that is at once attractive and peculiarly suitable to the climate of the South.

Perhaps the most interesting part of the book is that dealing with the most recent tall buildings. It is interesting to note that the Zoning Law of 1916 was called into being by the unbelievable congestion which occurred in the streets, and is not primarily a matter of light and air. A limit of height became an urgent necessity, and the new zoning laws were passed in spite of the strongest opposition from all quarters. It is fortunate indeed that the height of buildings was limited by angles, and not determined by a fixed horizontal dimension. The result is to introduce an entirely new element into design, and one that was speedily turned to good account by the architects of tall structures, with remarkable success in many cases, of which the Sherman Hotel is a notable one.

The author contests the view that tall buildings were forced upon New York by geographical conditions. There are, he says, plenty of tall buildings in other cities in the States where no such limits of space exist but skyscrapers are still built, because they like them. Certainly the new laws have modified the objections that were once advanced against skyscrapers, and a new and interesting epoch in their building has commenced.

The author's statement that " we are still applying to steel the æsthetic formulas which were developed in connection with brick and stone " raises a point of the greatest interest to us. We are accustomed to see our steel structures very slowly and painfully covering themselves with Palladian clothing—even our bridges dress up to cross the river—but we rather thought they did these things better in the States ! Certainly the best of the tall buildings, of which many are illustrated, do express the vertical lines of their steel frames admirably. In spite of this successful expression they are still conscious of being hampered with formulas that have long since ceased to mean anything. It is this divine discontent that holds such great promise for the future.

The concluding page records the author's view that American architecture is "*just entering* on a Renaissance which will probably be regarded as a great architectural epoch." It is this forward looking attitude which is the most hopeful augury for the future ; and if America continues to produce such powerful minds with which to meet her problems she will certainly retain the pre-eminence in architecture which is hers to-day. Mr Edgell's book should find a place in every architect's library

H. Austen Hall [*F.*]

DRY-ROT IN WOOD. *Department of Scientific and Industrial Research. Forest Products Research ; Bulletin. pam. 4o. Lond.* 1928. [*H.M. Stationery Office.*] 1*s.* 6*d.*

This publication, which should be of value both to architects and their clients, is of special interest as being the first bulletin issued by the recently established Forest Products Research Station at Princes Risborough under the Department of Scientific and Industrial Research, though one or two technical papers and special reports on moisture in wood and seasoning have already been published. Mr. Pearson, the director of the station, describes this pamphlet of 24 quarto pages as aiming at the presentation, in a lay form, of existing knowledge on this subject. The publication is divided into three parts, dealing respectively with the biological aspects of the matter, detection and treatment, and preventive precautions. The opening pages, on the structure and growth of fungi which interest themselves in house timbers, concludes with a valuable comparative table showing the characteristics of the well-known *Merulius* and five other fungi which can be included under the term " dry-rot." This is followed by some good, large scale photographic illustrations showing the development of *Merulius* and *Coniophora* and their effects on wood. The nine pages devoted to detection and treatment are split up into short sections, making reference easy. The information given is terse and sound, but that the important and difficult subject of sterlization by heat should be dismissed in ten lines merely goes to show how much research remains to be accomplished. In dealing with preservatives or fungicides, specifics under trade names are, perhaps wisely, avoided, but the reader is left with a range of choice which will generally be beyond his powers, and though specifications are given for certain tar distillates, it would require the services of an analyst to ensure that they were complied with. Part III, on precautions, consisting of four pages followed by three of structural diagrams, draws attention to the necessity for ensuring adequate ventilation and suitable design to prevent access of moisture. These admonitions refer chiefly to floor construction. Little stress is laid upon one of the commonest causes of dry-rot, inefficient and badly-jointed rainwater pipes. The usual warning about linoleum on floors is given, but people

will use linoleum as a cheap and readily cleanable material, which seems to suggest an opening for the manufacture of such a floor covering containing ingredients so repugnant to the fungus that it will avoid making a home in such a situation.

This brochure, which may be obtained for 1s. 6d. net from H.M. Stationery Office, is to be commended to all those engaged in construction and responsible for house property. Its appearance indicates an attitude towards a much neglected subject, which inspires hope that at last some serious investigation in practical fields beyond the sphere of the mycologist may be looked for in the near future.

ALAN E. MUNBY [*F.*].

EGYPTIAN ART. *By Wilhelm Worringer. Translated, with an Introduction, by Bernard Rackham. Putnams. 12s. 6d. 10 in. by 7½ in. 92 pages.*

This book might be considered well worth reckoning with by the architectural historian who, in any estimate of Egyptian architecture, desires to go well below the surface of his subject; and Mr. Rackham has perhaps done us a good turn to translate it. To the purely practical technician it will be of no use whatever. Professor Worringer's views are certainly arresting, but he sees in all Egyptian art an intensely narrow and unhopeful outlook, though purposeful in a ruthless sort of way; and he pays much attention to architecture. He compares Egypt with America (or rather with "Americanism") at many points—"only to an artificial people divorced from nature is it possible so quickly and surely to find this objective absoluteness of architectural style." One can thankfully register a healthy reaction against the author's pessimism in recollecting how intensely vital is the impression conveyed by such a building as the Seti Temple at Abydos; but it sets one thinking if, after all, the bright sunlight streaming down on a ruined Egypt is not responsible for the bulk of our impressions of its architecture. It may be admitted that the Denderah Temple, so complete, is gloomy and depressing. There are many excellent photographs—including some of grain elevators and other modern buildings—but the majority of them have apparently been chosen to represent the sordid side of Egyptian art. The concluding sentence might have pleased the late L. March Phillips: "In the Egyptian, just as metaphysical consciousness was lacking, so also was all spatial consciousness lacking." At any rate, the student of the Theory of Art will find much food for reflection in these pages.

D. T. F.

INNENRÄUME UND HAUSRAT DER EMPIRE- UND BIEDERMEIERZEIT IN ÖSTERREICH-UNGARN. Herausgegen von Josef Folnesics. 4o. Wien, 1920. (Kunstverlag Anton Schroll & Co.) £2 10s.

This book consists chiefly of plates illustrating the internal decorative treatment of apartments, and the design of furniture during the period 1790–1830. The examples of internal decorative work show a similar restraint and refinement to that found in the best work of the same period in England, and several of the pieces of furniture illustrated are remarkable for their character and beauty. This work is a very useful book of reference, particularly to those interested in furniture design.

H. S. D.

Correspondence

NATIONAL HEALTH AND PENSIONS INSURANCE OF ARTICLED PUPILS.

26, *Buckingham Gate,*
London, S.W.1.
28 *November* 1928.

To the Editor, JOURNAL, R.I.B.A.,—

DEAR SIR,—Referring to Mr. W. E. Watson's interesting letter on page 80 in your issue of 24 November, may we, on the authority of the Ministry of Health's Circular relating to the insurability of articled pupils, supplement his remarks, as follows? :—

Such persons over the age of 16 must be insured, unless employed without money payment. Where money payment of any kind is made to the pupil, in respect of such services as he renders, he must be insured.

The money payment need not be in the nature of fixed wages paid at stated intervals; but there must be some regularity or continuity in the payment, or it must, at least, bear some relation to the period of employment as a whole, as distinguished from casual payments at particular times or in connection with some particular piece of work.

Thus, where the pupil is entitled to receive a weekly, monthly, or other periodical payment, whilst articled, he is clearly required to be insured, even if there is no written agreement for such regular payments.

In cases where payment takes the form of a return in instalments or otherwise of the premium, if such payment is made to the pupil himself or to some other person on his behalf, he is insurable; though it would be otherwise if the premium were repaid for the use and benefit of the person (other than the pupil) who originally provided the premium.

It should also be noted that a certificate of exemption exempts the pupil from payment of contributions, but not the employer, who in all cases is required to pay contributions at a special rate.—We are, Sir, obediently yours,

HERBERT M. ADAMSON,
Secretary, The Architects' and Surveyors' Approved Society.

PUBLICATIONS RECEIVED

SMALLER HOUSES AND GARDENS OF VERSAILLES. By Leigh French, jr., and H. D. Eberlein. (*Pencil Points Library.*) 4o. N. York, 1926. [Pencil Points Press.] $6.00.

HARMONIA HARMONICA. By C. S. Hill. Vol. II. Sm. 4o. Priv. prin. 1927. 21s.

DECORATION IN ENGLAND from 1640 to 1760. By F. Lenygon. (English decoration and furniture of the XVIth–XIXth centuries, II. *Library of decorative art.*) 2nd ed. 4o. Lond. 1927. [Batsford.] £2 10s.

ART AND CRAFT OF GARDEN MAKING. By T. H. Mawson. 5th ed. 4o. Lond. and N. York, [1926]. [Batsford.] £3 15s.

PICTORIAL HOUSE MODELLING. By E. W. Hobbs. (*Lockwood's Manual.*) 12mo. Lond. 1926. [Crosby Lockwood.] 6s.

A WINDOW DICTIONARY. By W. F. Crittall. Sq. 12mo. Lond. 1926. [Batsford.] 2s. 6d.

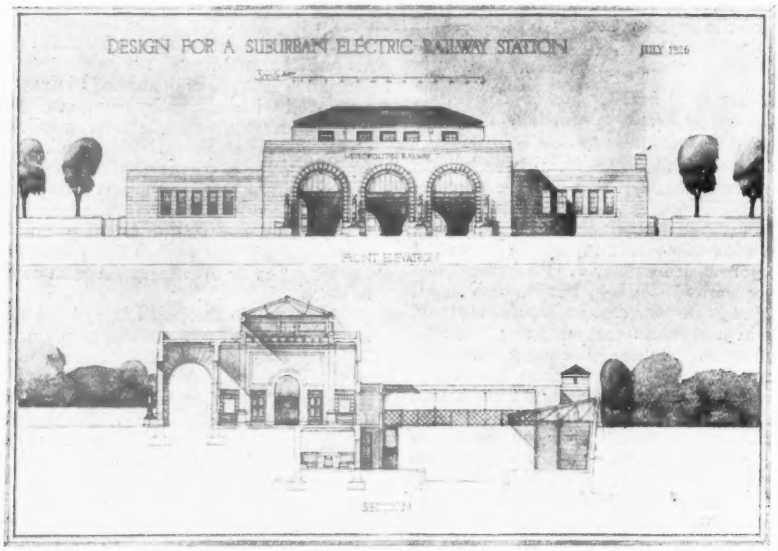
HEATING AND VENTILATION. By L. J. Overton. 8o. Manchester, [192–]. [Sutherland Publ. Co.] 12s.

Schools of Architecture

THIRD SERIES

II.—School of Architecture, City of Leicester College of Arts and Crafts

BY GEORGE NOTT [*F.*].



LEICESTER SCHOOL OF ARCHITECTURE: SECOND YEAR
Design by Mr. W. E. Fancott

This School is under the authority of the City of Leicester Education Committee and is housed in the College of Arts and Crafts. For convenience of organisation the department is known as the School of Architecture and Building and has upwards of 600 students, of which more than 50 are students of architecture. These latter come under three categories: (1) whole-time day students; (2) part-time day students who are pupils, assistants or sons of architects; (3) evening students who are pupils or assistants in the offices of architects.

For many years previous to the Great War the School of Architecture had a part-time day course and also an evening course. It was not until 1919, however, that the School was reorganised with a two years' whole-time day course in addition to the part-time day and evening courses.

In 1926 a three years' whole-time course was established and the School received recognition of this course from the R.I.B.A. in 1927.

Students come from the counties of Leicester and Rutland, and parts of the counties of Lincoln, Northampton, Warwick and Derby.

The Department has an Advisory Committee upon which serve four past-presidents of the Leicester and Leicestershire Society of Architects, and the School of Architecture is well supported by this Society; its members frequently visit the classes and they permit whole-time day students to spend about one half of the summer vacation on building works in progress under their Clerks of Works.

It may be said that the majority of local architects are either past students or past instructors of the School.

The staff of the School consists of five architects all engaged in practice, and their instruction is supplemented by the College staff in such subjects as drawing from life and the round, modelling, carving and colour decoration.

The accommodation provided for the School is good, but insufficient. This is being remedied, however, by additions to the College now in course of erection. In these extensions it is proposed to include a well-equipped

building science laboratory with testing machinery and apparatus.

The School provides three courses :—

(1) The Certificate Course (three years' whole-time recognised by the R.I.B.A.).

(2) Part-time day Course.

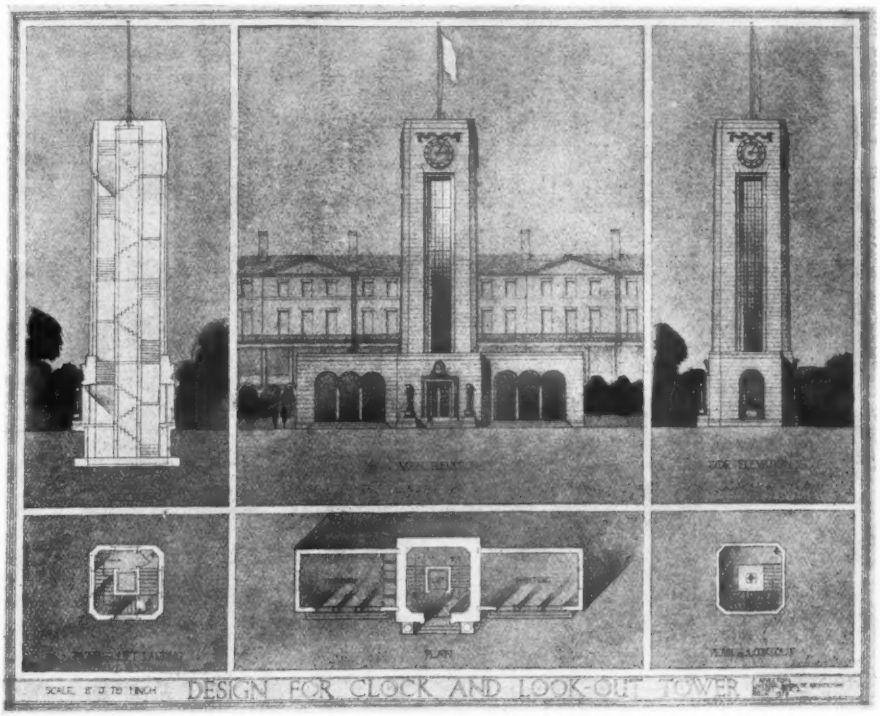
(3) Evening Course.

The environment is such as to provide association with students of the other arts and also with builders and operatives of the building crafts.

In the teaching of history the aim is to emphasise the importance of the three great constructive periods, viz., Greek, Roman, and thirteenth-century Gothic, so that the student may realise the principle that constructive forms should be the basis of architecture of any period and the reciprocal principle that these forms must be æsthetically satisfying to those understanding composition, mass, proportion and refinement.

The student is taught that an architect should not blindly accept the forms supplied by the structural engineer, that it is necessary that he, himself, should be well trained in the making of theoretical calculations and the selection of constructive forms, not on account of the desirability of his pursuing this method in practice, but because it is essential to the understanding of organic architecture.

This School, therefore, aims at a very close alliance of the instruction given in design and theoretical and practical building construction, and it is so organised that this instruction is given by its own staff of architects.



LEICESTER SCHOOL OF ARCHITECTURE: SECOND YEAR
Design by Mr. F. Appleton

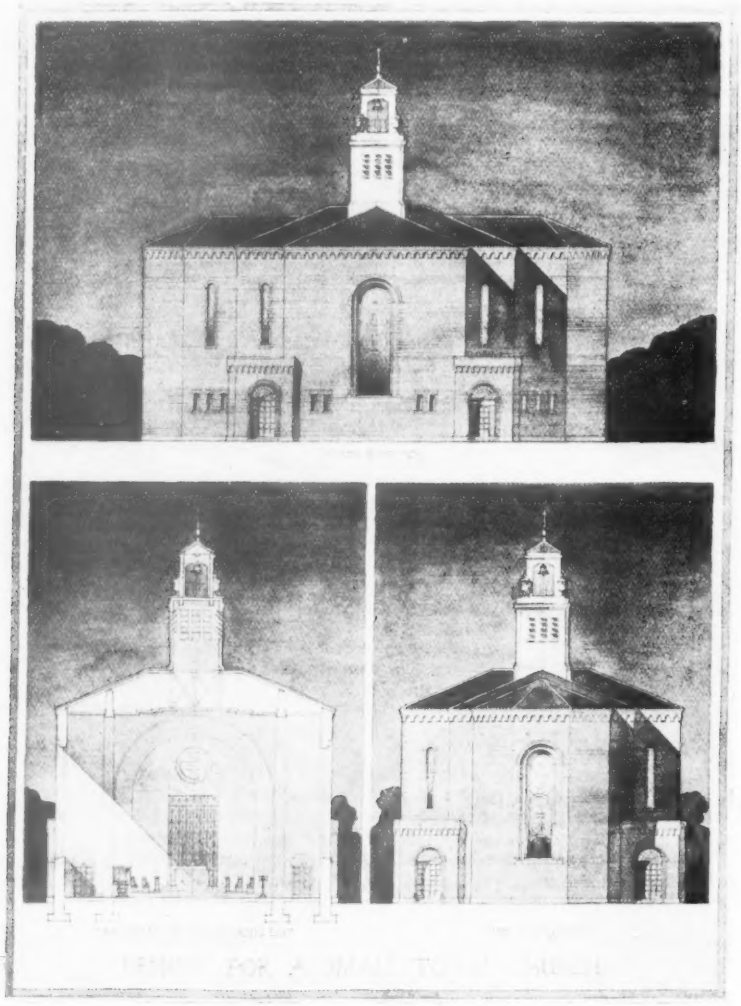
Lectures are given on History of Architecture, on the Theory of Design, on Composition, Principles of Planning and on Building Science and Construction.

Skill in draughtsmanship is regarded as a valuable if not essential accomplishment of an architect, and a good deal of attention is devoted to drawing, particularly in the early stages. Opportunity is provided for acquiring proficiency in freehand drawing from the round and life, in geometrical, isometrical, sciographical and perspective drawing, rendering and colour work so that the student may be able to express his intention both freely and

accurately and in such a way as to make himself intelligible to client, contractor and operative.

In the summer term outdoor sketching and measuring and sketches of historical work within the province of the Society.

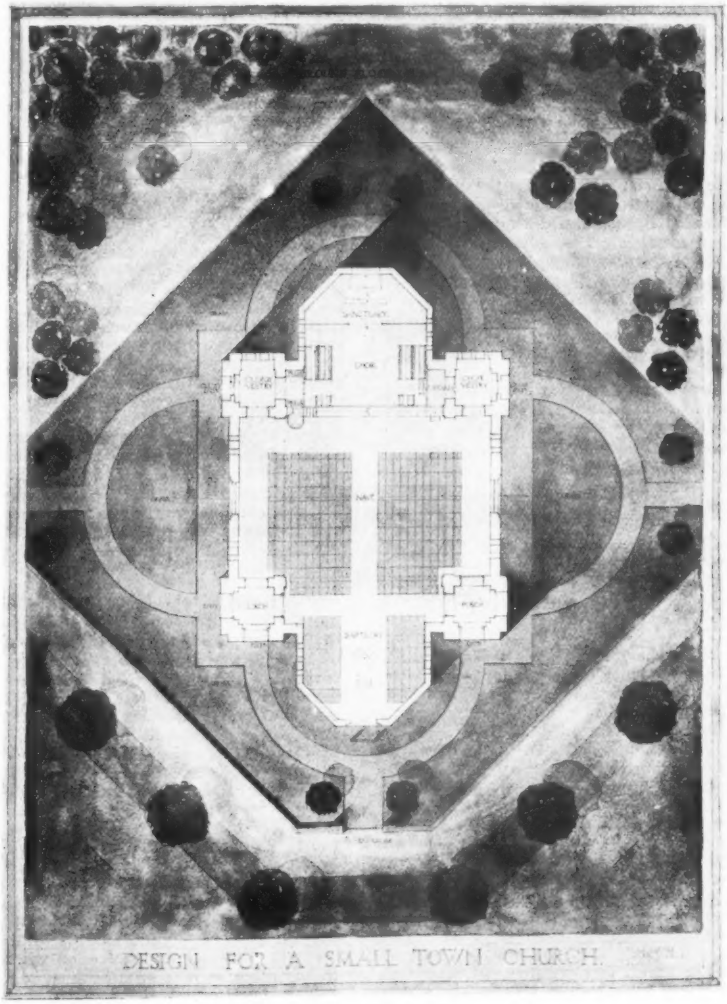
Contact with actual building operations is obtained by



LEICESTER SCHOOL OF ARCHITECTURE: THIRD YEAR
Design by Mr. L. W. A. Cooper

are arranged to enable the student to record existing work as an aid to the visualising of work to be erected from his own designs. This work is encouraged by the local Society of Architects by the offering of prizes and by the publication in its year book of measured drawings visiting buildings in course of erection and by the arrangement with local architects for students to spend several weeks of the long vacation on works in progress under the Clerks of Works. The necessity of being familiar with modern social conditions and requirements

is pointed out, as is also the desirability of keeping abreast of developments in building materials, the works of manufacturers being visited.



LEICESTER SCHOOL OF ARCHITECTURE: THIRD YEAR
Design by Mr. L. W. A. Cooper

It is hoped that the provision of a well-equipped building laboratory will provide facility for the study and testing of new materials and lead to research in this direction.

Students are encouraged to present themselves for examinations, but they are warned that their outlook must not be one restricted by that system. Experience shows that the work of a certain type of student deteriorates after reaching the graduate stage while that of others improves.

The objective of this School is the provision of that instruction in fundamental principles which is necessary to the early career of a cultured and qualified architect.

Allied Societies

(The attention of Members of the Allied Societies is specially called to this page)

Notices

BERKSHIRE SOCIETY OF ARCHITECTS.

PUBLIC LECTURES ON ARCHITECTURE.

The following lecture has been arranged by the Berkshire Society of Architects in conjunction with the Reading Branch of the Workers' Educational Association during the Session 1928–9.

On Wednesday, 20 February, Mr. Oswald P. Milne, F.R.I.B.A. Subject: Everyday Houses—British and Foreign.

The lecture, which will be illustrated by lantern slides, will be held at the University, Reading, in the Hall, and will commence at 8 p.m. Tickets can be obtained at the doors, 3d. each.

The first of the lectures was given on 3 November, when Professor Reilly, O.B.E., M.A., F.R.I.B.A., spoke on Liverpool Cathedral.

W. J. FREEMAN, E. STEWARD SMITH } *Hon. Secs.*

Reports

THE SOUTH WALES INSTITUTE OF ARCHITECTS CENTRAL (CARDIFF) BRANCH.

On Thursday, 22 November, Mr. J. E. Barton, M.A., Headmaster of the Grammar School, Bristol, delivered a lecture in the Lecture Theatre of the Engineers' Institute, Cardiff, on "Art and Character." The lecture was organised by the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch), and in the absence of Mr. J. Llewellin Smith, M.B.E., L.R.I.B.A., Mr. Ivor Jones, A.R.I.B.A., presided over a large audience of members and their friends.

Mr. Barton's lecture, which was illustrated by a fine collection of lantern slides, dealt first with the Oriental characteristics of architecture and allied arts in certain of the great periods. He then illustrated and discussed some of the earlier manifestations of art in Crete, ancient Egypt, and China, and ended with an interesting comparison of the arts in the nineteenth century and some present-day developments. His treatment of the triumph of sincerity over the sentimentality of certain phases of the nineteenth century pictorial art was a particularly valuable climax to a lecture which was highly appreciated by the many builders, architects, students and others who were present.

WEST YORKSHIRE SOCIETY OF ARCHITECTS.

The Opening General Meeting of the West Yorkshire Society of Architects was held on 20 November, 1928, at the Hotel Metropole, Leeds.

Mr. G. H. Foggitt, A.R.I.B.A., A.R.C.A., gave his Presidential address, extracts from which are printed below.

New Street, Leeds.—We can hardly let such an occasion as this pass by without some reference to the new street in Leeds of which we have recently heard so much. Work has commenced and we shall shortly be able to see more than the steel frameworks rising from the clay. The press has told us in recent days of new developments which we hope may be but the forerunners of other similar developments which should make what we now know as Upperhead Row one of the most important shopping centres in Leeds.

With the enterprise shown by at least one well-known firm already in that street, the coming of a store such as Lewis's, the likelihood of such examples being followed by other firms, the nearness of important bus termini, and the growing appreciation of the fact that buildings of good architectural character are sound commercial investments, it is very probable that a street with the dignity such as we hope to find in this new street, will prove that the long view taken by Alderman Lupton and his colleagues on the Improvements Committee, was a wise one, and worthy of emulation. In spite of our criticisms, we recognise the largeness of the conception, and the courage with which the whole scheme is being carried through its various stages, and we look forward with interested anticipation to the growth of the new thoroughfare.

Educational Matters.—The local school here in Leeds with which we are intimately associated is growing in numbers, and is doing excellent work under the leadership of Mr. Addison and his staff. One of the most recent developments is an Atelier for senior students where studies of an advanced nature are to be made, and criticisms given by specialists as occasion arises.

Registration.—The question of Registration has loomed large during the past year. Unfortunately, the Bill, carefully drafted and piloted through difficult waters was, by an accident of Parliamentary procedure, not approved when before the House. I think we can rest assured that it will be again introduced at the earliest opportunity, and persevered with until the desired success is achieved. Registration is more than a trades union demand for protection. It is necessary in the best interests of the public. There is, all around us, a crying need for good architecture. The bad greatly preponderates, and it is becoming more and more widely recognised that bad, shoddy and vulgar building is a national calamity. This preponderance of bad building is because there are more ill-trained or untrained architects than well-trained ones, and the public is largely blind to the need for trained ability to direct its building work.

Though to-day, better means of training are available than ever before, because there is no external compelling reason why an architect should trouble to obtain a proper training, many are entering the profession without troubling in this or in any other way, to attain the standard set by the voluntary examinations of the R.I.B.A. Why bother, when they can pose as competent men without taking any steps to attain competence?

It is granted that compulsory education will not necessarily produce great architecture or great architects; but if, on the other hand, a man has a natural genius for design, he will not lose it because he has been taught the facts of construction, and the theories of composition and design. Originality will not be stifled by organised training, nor academic dullness produced. The most brilliant work of to-day of the younger men, is being produced by the school trained men. Registration will not rob any man of the means of earning a liveli-

hood, but it will afford the public guidance. They will have a means of knowing the qualifications of those professing to be designers of buildings. Knowing the distinction between the trained and the untrained man, the public will still have the choice of selecting which they will employ to serve their purpose.

The Need for Control.—One of the subjects receiving a good deal of attention in the press nowadays, deals with the preservation of the beauty of the countryside. Some two years ago, Mr. Guy Dawber inaugurated a campaign which resulted in the foundation of the Council for the Preservation of Rural England. The movement has gathered weight, and bids fair to do a real service to the country by rousing public opinion, and educating the public to a sense of the precious heritage which is theirs, before it is too late. Attention is being drawn to such things as the disfigurement caused by advertisements, vulgar and unsuitable design in buildings out of harmony with their locality, ribbon development along our new or widened roads, and the like.

The evidences of the need for some such movement are widespread, not only in our country districts but in our towns as well. In the country, the petrol pump seems often to be treated as the main offender, but I think it is more often the numerous glaring and irregular tin advertisements for the various oils and petrols, the ramshackle, shapeless and undignified wooden and other erections which comprise the garage buildings which cause the unsightliness so often to be deplored. The numerous allotments which, if carefully tended, would give orderly evidence of man's co-operation with nature, often are unsightly because of the home-made shanties, the old railway coaches and derelict buses which have in some cases almost developed into desirable country residences. Poster advertisements are too often a disfigurement of our by-ways. Much has already been done in bringing the poster to a standard of high artistic excellence, and, where suitably displayed, good and useful service may be done by them in educating the artistic sense of the public. It is their improper display that is to be deplored. The growth of the press as an advertising medium should lead to there being less need for this particular form of disfigurement around us.

Electric signs, more particularly perhaps in our towns, can be and often are, an offence against public decency. Strict powers should be given to the authorities to control the erection of such signs, and sanction for their erection should be sparingly given. If this is not possible, then a boycotting by the public of the goods sold by concerns using such means for attracting attention might do good. A further reform I should like to see would be the abolishing of a great many of the loud fascia signs which surmount the majority of our shop fronts, and other signs, which in the interests of advertisement are often written in sprawling ungainliness across our buildings. Our streets would gain much if such lettering were severely restricted and confined within ordered limits.

There is already in existence certain control in some European countries, and in England, the two main moves in this direction are those at Bath, comprised in what is known as "The Bath Act," a form of official control, and at Birmingham where the control exercised is under a voluntary system. The Ministry of Health has also prepared Model Clauses for inclusion in Town Planning Schemes for the purpose of controlling the elevations of buildings.

Present and Future Tendencies.—To-day, there is a growing interest in the public mind in architectural matters. Articles on building in the daily press, written by architects and giving informed criticism of the buildings of our towns; the meetings of the Architecture Club in London, where the layman and the professional man meet and discuss matters of architectural interest; illustrations in the daily press of modern buildings which, though primarily inserted as advertising stunts (not by the architect, I might add) yet have an influence on the reading public; the awarding of the bronze medal for the best building of the year in London to a small house—these things all tend to awaken in the public mind an interest which, in the past, has been sadly lacking.

In spite of M. le Corbusier's sweeping criticism of present-day architecture, the spirit of progress is manifesting itself on all sides. Our professional press is giving more and more attention to the work of the modern schools in Sweden, Denmark, Austria, France, Germany, Holland and America, and we are receiving inspiration which is bringing a fresh breath of life into our art.

There is a real eagerness on the part of architects and designers to adopt modern materials and modern construction in modern days for modern needs. Architecture is tending to become more and more international. Economy and science are potent factors to-day. Transport makes possible the use of any and every building material, irrespective of locality. Science is playing an ever-increasing part in our changing methods of construction. Its application to the building industry is making its presence felt, though up to the present, it has hardly been strong enough to break down traditional methods entirely. We may expect still further development in this respect. Economy tends toward severity in the elimination of unnecessary display, and we are realising that good architecture is mainly a question of proportion and mass. Simplicity is superseding fussiness, and dignity is achieved otherwise than by the superimposing of the orders.

Mr. Howard Robertson somewhere has written: "The true modern does not despise the fine old work of tradition." He deplores the abuse of it—the debasement of features once significant and structural, to useless and costly decorative impedimenta. He deplores the mental inertia that so often lies behind vaunted respect for tradition, under cloak of which much pilfering takes place. If the modern idea prevails, the development of architecture will be affected by a more scientific turn of thought. The modern will see to it that the architectural problem of the twentieth century receives the best possible solution. If no traditional styles can be logically employed, then those styles will be dropped. Questions of material and construction are less important. We will use concrete and steel as long as they serve, but if someone invents something better, we will use that.

Thus, architecture will change, as it should, and evolve, as it always will. It will be assured of vitality, at least, but only on condition that the architect is trained to think.

The third sessional meeting of the West Yorkshire Society of Architects was held at Leeds on 29 November, when Mr. Leonard Whitaker, who recently won the society's travelling studentship, gave a lecture upon his experiences abroad. On the motion of the president, Mr. G. H. Foggitt [*A.*], the chair was taken by a fellow student of the lecturer's, Mr. J. R. Tolson. An interesting account was given of the student's experiences whilst travelling and studying in France, Switzerland, Italy, Austria, and Bavaria, illustrated by lantern slides.

ST. PAUL'S ECCLESIOLOGICAL SOCIETY.

A meeting of the St. Paul's Ecclesiological Society will be held on Wednesday, 19 December 1928, at 8 p.m., in the hall of the Royal Institute of British Architects.

Mr. A. R. Powys, A.R.I.B.A., Secretary of the Society for the Protection of Ancient Buildings, will speak on "The Preservation of Ancient Buildings." The lecture will be illustrated by lantern slides. Friends of members and members of kindred societies are invited.

Obituary

THE LATE WILLIAM HOWARD SETH-SMITH [*F.*]

By W. A. PITE [*F.*]

Mr. W. H. Seth-Smith, who died on 30 August 1928, came of a family intimately connected with building interests in London, for his grandfather was the builder of Eaton Square and other West End property, while his father was greatly interested in the design and erection of much estate work at Walton and Weybridge, and with these enterprises he was early associated.

He entered the office of Habershon and Pite, both Fellows of the R.I.B.A., about 1875, with some measure of preliminary experience. Among his contemporaries in that office was Edward W. Mountford, later to achieve such a distinguished position in the profession, who, in moving a vote of thanks to Seth-Smith when President of the Architectural Association in 1901, said "the office in which he had received his education had produced the then President of the A.A., the President of the R.I.B.A. (Sir William Emerson), and the Colonel of the Artists' Rifles (Sir Robert Edis), and he thought that was sufficient to make the office a notable one."

From the outset Seth-Smith was an enthusiastic worker; he travelled and read much, and became a singularly skilful water-colour sketcher.

Throughout his career he was deeply interested in the cause of architectural education and in the advancement of his profession. Although not a founder of the Society of Architects, he early allied himself with that body, and served as its President 1888–1891. It was during the second term of his presidency that an excursion organised by the secretary, Mr. G. A. T. Middleton, was made to Belgium, the party being received at Ostend by H.M. King Leopold. Throughout the visit, and particularly at the Royal interview which took place, the President's dignified personality and tact were of much value. Seth-Smith was an ardent supporter of Registration from the first, and spent himself in forwarding the movement, then an unpopular cause, but he had the courage of his convictions and the satisfaction of seeing its near accomplishment.

His keen sense of loyalty to the R.I.B.A. doubtless led to his retirement from the Society in 1897, when an entrance examination was instituted by that body. But the most signal service he rendered to the profession was in relation to education in connection with the Architectural Association, with which body he had been long connected, and twice served as President, 1900–02, delivering two thoughtful addresses. Mr. Leonard Stokes, who had preceded him in the presidency, had, with those associated with him, laid the foundation of what followed by the institution of the evening Studio under the direction of Mr. W. G. B. Lewis. But the inauguration of the Day School is largely due to Seth-Smith's ability and untiring labour. The School commenced under the direction of Mr. Arthur Bolton as master, with such success that the premises in Great Marlborough Street had to be extended, and thus began an epoch of development which has made the Architectural Association unique among professional bodies. Negotiations were opened by the generous services of Mr. Maurice B. Adams, and the Association entered into possession of a wonderful heritage by the acquisition of the Royal Architectural Museum in Tufton Street, Westminster, to many of us in those days, indeed, a place of the greatest fascination.

Some further adjoining property was secured, and plans were prepared by Mr. Leonard Stokes, which provided adequate and admirable accommodation for the new venture and the other activities of the Association. From that period onward the educational work of the Association greatly prospered under the mastership of Mr. H. P. G. Maule. During the recent war a time of difficulty had to be faced; the premises were eventually disposed of, and the school, such as it was in its depleted condition, removed to Bedford Square. Since then quick and distinguished advance has been made by able leadership, and under the mastership of Mr. Robert Atkinson, which has undoubtedly resulted in advancing the art of architecture and the status of the profession.

It is surely given to few to see results such as Seth-Smith was permitted to find accomplished, although he could take but little active part in later years. Continuity of policy and progress with the times were maxims with him, and he had satisfaction in seeing the unification of the profession by the amalgamation of the Society of Architects with the Royal Institute. Among Seth-Smith's other activities to be recorded is his association with the first Building Exhibition, held at the Floral Hall, Covent Garden, which has so wonderfully developed under the organisation of Mr. Henry Montgomery, growing, as it has, to the vast institution held periodically at Olympia. Seth-Smith's architectural output was not extensive, but in all that he did he delighted. Among his executed works may be mentioned the Marling Schools, Stroud; six homes for boys, with chapel, workshops, chaplain's house, etc., at Dalesford; St. Luke's Church, Maidstone; the Church Missionary Society House, Salisbury Square; the Grafton Hotel, homes for working boys and girls, and a number of houses in the country. To the outsider Seth-Smith was unobtrusive and perhaps a little diffident. He possessed unremitting zeal, a keen sense of humour, and wholehearted devotion to the great causes he had so much at heart. He was a true and devoted friend to all who sought his counsel, and beneath his real brotherly personality was a firm belief in higher things, which naturally led him unselfishly to seek the spiritual and temporal welfare of his brother man who needed guidance, and to give generous help to the "down and out," and that all unknown to but few of his intimate friends.

Such is an inadequate notice of a long and useful life beloved by all who knew him. Howard Seth-Smith was one of those whose passing leaves not only an

appreciable void, but an achievement which has altered the whole complexion of our professional concerns. Few are aware of the measure of credit that is due to his memory in the great share that he had in revolutionising architectural education in England.

Mr. Seth-Smith was associated with Mr. W. Ernest Monro [*F.*] for over forty years, the last twenty-three of which were in partnership in close friendship; this alone is a remarkable testimony.

LAURENCE HOBSON [*F.*].

Mr. Laurence Hobson, who died suddenly at West Kirby, Cheshire, on 6 November, in his 57th year, was well known in architectural and artistic circles in Liverpool.

The son of Frederick H. Hobson, who also was an architect, he served his articles with the late Henry Hartley, of Liverpool, in whose office he spent several years as assistant.

In 1897 he gained the Arthur Cates prize, and the following year he was elected an Associate of the Institute.

In 1906 he entered into a partnership with Mr. Charles W. Harris, and this association continued until his death.

He became a Fellow of the Institute in 1915.

Possessing a high standard of technical efficiency his industrial work was always marked by a keen appreciation of strictly utilitarian values, but his artistic gifts found their happiest architectural expression in the design of country houses and cottages in the Tudor manner.

He was a past President of the Liverpool Artists' Club, and a frequent exhibitor at the Liverpool Autumn Exhibition.

BERTRAM VAUGHAN JOHNSON [*A.*]

Mr. Bertram Vaughan Johnson died at his home in Dorset on 27 September at the age of 65.

He was the eldest son of H. R. Vaughan Johnson, one of the Conveyancing Council to the Court of Chancery, and the Honourable Cecilia, daughter of Lord Chancellor Campbell.

On taking his degree at Trinity College, Cambridge, in 1884 he was articled to Sir Arthur Blomfield, and remained in his office for some years.

He was much interested in restoring and reconstructing old houses.

Amongst other work, he designed and carried out the building of the Victoria Hospital and Nurses' Home, at Frome, Somerset, in 1899; the Church of St. George's-on-the-Lea, at Darwin, in 1900; and the Church of St. Brendan, at Skipness, Argyllshire, in 1896.

In 1913 he built two houses at Banstead, Surrey, one for Sir Henry Lambert, K.C.M.G., C.B.

On retiring in 1916 to live at Beaminster, Dorset, he became J.P. for that county.

TOWN PLANNING INSTITUTE.

The Town Planning Institute have drawn up an interesting syllabus of papers to be read at their Meetings during the current Session, and a card of invitation will be sent to any member of the R.I.B.A. who would care to attend all or any of the meetings.

MR. ALBERT J. THOMAS [*F.*].

The French Government have awarded the Cross of the Legion of Honour, conferring the title of Chevalier, to Mr. Albert J. Thomas, F.S.A., F.R.I.B.A.

Mr. Albert Thomas has been connected for many years with the Institut Français in London as member of the Council and Hon. Architect to the Institut.

The George Wittet Memorial

The Governor of Bombay (Sir Leslie Wilson) performed the unveiling ceremony of the George Wittet Memorial Tablet erected in the Gateway of India, Bombay, on 15 November. The Tablet commemorates the great services rendered to Bombay in particular and to India in general by the late Mr. George Wittet who was associated for 22 years with the city of Bombay and who during the greater part of that time filled with distinction the office of Consulting Architect to Government.

Mr. W. H. Neilson, Chairman of the Memorial Fund, briefly explained the inception of the commemoration scheme :—

"George Wittet died on the 10th September, 1926, and at a widely attended meeting held in the Royal Institute of Science shortly after Mr. Wittet's death, it was unanimously resolved to formulate a scheme to perpetuate in some worthy and appropriate form, the memory of this brilliant architect and the great services rendered by him to this City and Presidency. A Committee was formed and after due deliberation it was decided that the most suitable form of memorial would be :—

"(*a*) The erection, subject to the approval of Government, of a Memorial Tablet in the Gateway of India;

"(*b*) The endowment of one or more travelling scholarships for senior architectural students, to be known as the Wittet Scholarships and to be awarded by annual competitive examination in Bombay, each scholarship being of a value sufficient to enable the holder to spend say six months in touring India and studying at first hand the masterpieces of Indian architecture, both ancient and modern.

"Although, as a result of the labours of such as George Wittet, conditions have improved of recent years, the opportunities for study and the rewards for merit in the case of architectural students in India are still extremely limited and far below those which other countries offer, and our present object is to endeavour to make a start in remedying that defect. We have collected altogether close on Rs. 18,000 and the balance available after defraying the cost of the Memorial Tablet will be roughly Rs. 16,000.

"I will not pretend that the response has come up to the Committee's hopes, but, as we all know, times have not been good and the demands on our purses have been many and varied. The money collected, if invested at 5 per cent., would give us an available annual return of Rs. 800—say Rs. 130 a month spread over a period of six months. We could make a beginning with this sum but we feel that it is not really adequate to carry out the scheme in a manner worthy of it. It is the opinion of the Committee that the scholarship should be of a value of not less than Rs. 200 a month if it is to enable the holder to derive full benefit from first hand study of the wide field of architecture which India offers.

"In tendering their grateful thanks, therefore, to those who have already given donations, the Committee make this final appeal for a further measure of support such as they hope will enable them to achieve the object in view. They have decided to keep the subscription list open till the end of this year. Any further donations will be gratefully received by the Honorary Treasurers and will

be acknowledged through the medium of the daily Press."

Unveiling the Memorial, Sir Leslie Wilson said:—

" No one who is familiar with the great public buildings of Bombay can fail to be impressed with the importance of George Wittet's work to this City and Presidency, and indeed to the architectural development of India. A list of the principal buildings which he designed, both in Bombay and in other parts of the Presidency, has been given in the appeal issued to-day by the Memorial Committee, but here in Bombay it can truly be said that if you wish to find a fitting monument to his memory you have only to look around. The Gateway of India itself, where we stand to-day, will now bear for all time, in the memorial tablet which I am about to unveil, a fitting tribute to his genius, of which it is perhaps the most striking example.

GEORGE WITTET
FELLOW OF THE
ROYAL INSTITUTE OF BRITISH ARCHITECTS
AND
CONSULTING ARCHITECT TO THE
GOVERNMENT OF BOMBAY
THIS GATEWAY AND MANY OTHER BUILDINGS
IN THIS CITY AND PRESIDENCY ARE ENDURING
MONUMENTS TO HIS ABILITY
HE RENDERED VALUABLE SERVICE TO THE CAUSE
OF ARCHITECTURAL EDUCATION
AT THE BOMBAY SCHOOL OF ARCHITECTURE
PRESIDENT OF THE BOMBAY ARCHITECTURAL
STUDENTS' ASSOCIATION
A FUND RAISED BY PUBLIC SUBSCRIPTION HAS
BEEN UTILIZED TO ERECT THIS MEMORIAL TABLET
AND TO FOUND THE WITTET COMMEMORATION
SCHOLARSHIPS FOR THE ENCOURAGEMENT OF
THE STUDY OF ARCHITECTURE IN INDIA

GEORGE WITTET MEMORIAL TABLET
Designed by Claude Batley [*A.*] assisted by T. S. Gregson [*F.*]

"It is not only for these abiding monuments in stone, remarkable as they are, that George Wittet will be remembered in Bombay, for, by the leading part he took in the training of students of architecture in the School of Art, he established a tradition which will, I hope, continue to bear fruit for many years to come. It was his constant endeavour to improve the standard of architecture in Bombay and to increase the opportunities for study, and his efforts in this direction must deserve the thanks of many students who have benefited both from his own teaching and from the traditions which he set up. I feel confident, therefore, that there is no way in which his own wishes could have been better realised than that proposed by the Committee for the encouragement of the study of architecture, and I consequently venture to endorse very strongly the appeal of the Committee for further support, in order that it may be enabled to launch the scheme in a manner worthy of its objects which are to commemorate the name of a great architect and to raise the standard of architecture in this Presidency and in India."

THE PRESERVATION OF RURAL ENGLAND

The following circular has been issued by the Ministry of Health for the information of local authorities in England and Wales :—

MINISTRY OF HEALTH,
London, S.W.1.
29 *November* 1928.

I am directed by the Minister of Health to refer to the Circular of January, 1927, No. 756, and to say that he wishes to bring to the notice of Local Authorities arrangements which have been made, with his approval, by the Council for the Preservation of Rural England acting in co-operation with the Royal Institute of British Architects for giving expert advice, free of charge, on the carrying out of works of repair and reconditioning under the Housing (Rural Workers) Act, 1926.

As you will be aware, under this Act assistance cannot be given in the case of a house or building to which any historical, architectural or artistic interest attaches if the proposed works would destroy or seriously diminish that interest, and special attention was drawn in Circular No. 756 to the importance of seeing that works should be so carried out as not to impair the appearance of cottages or to detract from the amenities of the district.

To secure this end it is clearly desirable that advice and guidance should be available from those who have expert knowledge and experience in this class of building. Architects and others interested in the matter have been anxious to give their help in this work, and the Council for the Preservation of Rural England, in conjunction with the Royal Institute of British Architects, have now set up panels covering all parts of England and Wales which will be available for giving advice—

(1) to owners who want the best technical assistance in improving their cottages without spoiling their appearance, and

(2) to Local Authorities who want some assurance that the proposed reconditioning works will not spoil the picturesque appearance or destroy the historical character of the cottages.

As stated above, no charge will be made for such advice, but applicants will be expected to defray any travelling expenses which may be incurred.

The panels which have been constituted for the purpose described above have expressed a willingness to assist Local Authorities and others in the general preservation of the amenities of rural areas, not only in connection with the Housing (Rural Workers) Act, but also in connection with town planning schemes ; and Local Authorities and developing owners can advantageously avail themselves of this assistance. As the Minister has emphasised from time to time, the best results are likely to be obtained in friendly co-operation between Local Authorities and land-owners and developers. Many of the difficulties which occur would be obviated if there were consultation at the earliest stage of proposals, a better understanding of each other's points of view, and more knowledge of how much can be done, with due regard to finance and private interests, to avoid development which may be a disfigurement.

A list of Associations and Societies affiliated to the Royal Institute of British Architects is appended. Those wishing to make use of the help offered by the panels should communicate with the Convener of the panel for the area concerned or, where no Convener is indicated in the list, with the Secretary of the nearest affiliated Association or Society, who will at once put them in touch with the appropriate panel.

E. TUDOR OWEN,
Assistant Secretary.

BERKSHIRE, BUCKINGHAM AND OXFORD ARCHITECTURAL ASSOCIATION.
Hon. Secretary : H. S. Stribling, Esq., 65-67, High Street, Slough, Bucks.

BIRMINGHAM ARCHITECTURAL ASSOCIATION (WARWICK, STAFFORD, SHROPSHIRE, HEREFORD AND WORCESTER).
Secretary : Owen W. Thompson, Esq., F.C.A., 11, Waterloo Street, Birmingham.

DEVON AND CORNWALL ARCHITECTURAL ASSOCIATION.
Hon. Secretary : John Challice, Esq., 7, Bedford Circus, Exeter.
Hon. Secretary and Convener of Panel : Lewis F. Tonar, Esq., L.R.I.B.A., 16, Bedford Circus, Exeter.

ESSEX SOCIETY OF ARCHITECTS.
Hon. Secretary : D. N. Martin Kaye, Esq., A.R.I.B.A., Pantiles, Boston Avenue, Southend-on-Sea.

HAMPSHIRE AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION.
Hon. Secretary and Convener of Panel : A. L. Roberts, Esq., F.R.I.B.A., The Castle, Winchester, Hants.

LEICESTER AND LEICESTERSHIRE SOCIETY OF ARCHITECTS (LEICESTER AND RUTLAND).
Hon. Secretary : C. F. McL. Keay, Esq., 6, Millstone Lane, Leicester.

LIVERPOOL ARCHITECTURAL SOCIETY (PART OF LANCASHIRE, PART OF CHESHIRE, WHITCHURCH (SALOP), FLINT, DENBIGH, CAERNARVON, ANGLESEY, MERIONETH AND MONTGOMERY).
Hon. Secretary : F. X. Velarde, Esq., 15, Tithebarn Street, Liverpool.
Hon. Secretary and Convener of Panel : Hastwell Grayson, Esq., F.R.I.B.A., 606, Royal Liver Building, Liverpool and Newton Green, Chester.

MANCHESTER SOCIETY OF ARCHITECTS (WESTMORLAND, PART OF LANCASHIRE AND PART OF CHESHIRE).
Hon. Secretary : S. A. Gradwell, Esq., A.C.A., 64a, Bridge Street, Manchester.

NORFOLK AND NORWICH ASSOCIATION OF ARCHITECTS.
Hon. Secretary : E. W. B. Scott, Esq., 23, Tombland Street, Norwich.

NORTHAMPTON, BEDFORD AND HUNTINGDON ASSOCIATION OF ARCHITECTS.
Hon. Secretary : C. Croft, Esq., F.S.I., 9, Gold Street, Northampton.
Hon. Secretary and Convener of Panel : S. Harris, Esq., F.R.I.B.A., 9, Gold Street, Northampton.

NORTHERN ARCHITECTURAL ASSOCIATION (NORTHUMBERLAND, CUMBERLAND, DURHAM AND COUNTY BOROUGH OF MIDDLESBOROUGH).
Hon. Secretary : R. N. Mackellar, Esq., Pilgrim House, Pilgrim Street, Newcastle-on-Tyne.

NOTTINGHAM AND DERBY ARCHITECTURAL SOCIETY (NOTTINGHAM, SOUTH DERBY AND SOUTH LINCOLN).
Hon. Secretary : H. H. Goodall, Esq., 46, Bridlesmith Gate, Nottingham.
Hon. Secretary and Convener of Panel : W. Brandreth Savidge, Esq., A.R.I.B.A., Bromley House, Angel Row, Nottingham.

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS (NORTH DERBY, NORTH LINCOLN AND SOUTH YORKSHRE).
Hon. Secretary : H. B. S. Gibbs, Esq., A.R.I.B.A., 15, St. James Row, Sheffield.
Hon. Secretary and Convener of Panel : W. G. Buck, Esq., F.R.I.B.A., Shrewsbury Chambers, Campo Lane, Sheffield.

SOUTH EASTERN SOCIETY OF ARCHITECTS.
Hon. Secretary : R. Goulburn Lovell, Esq., St. Moritz, The Upper Avenue, Eastbourne.

SOUTH WALES INSTITUTE OF ARCHITECTS (GLAMORGAN, BRECKNOCK, RADNOR, CARDIGAN, PEMBROKE, CARMARTHEN AND MONMOUTH).
Hon. Secretary : Ivor P. Jones, Esq., 6-7, St. Johns Square, Cardiff.
Hon. Secretary and Convener of Panel : T. Alwyn Lloyd, Esq., F.R.I.B.A., 6, Cathedral Road, Cardiff.

WESSEX SOCIETY OF ARCHITECTS (GLOUCESTER, WILTSHIRE, SOMERSET AND DORSET).
Hon. Secretaries : H. E. Todd, Esq., A.R.I.B.A., 29, Orchard Street, Bristol, and H. F. Trew, Esq., L.R.I.B.A., Burleigh House, Nettleton Road, Gloucester.

LEEDS AND WEST YORKSHIRE SOCIETY OF ARCHITECTS.
Hon. Secretary : Joseph Addison, Esq., M.C., 62, Woodhouse Lane, Leeds.
Hon. Secretary and Convener of Panel : F. L. Charlton, Esq., A.R.I.B.A., 21, Bond Street, Leeds.

YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY (YORKSHIRE, EAST RIDING AND NORTH RIDING).
Hon. Secretary : R. Jackson, Esq., Waverley House, 39, Micklegate, York.
Hon. Secretary and Convener of Panel : J. M. Dossor, Esq., F.R.I.B.A., Waterloo Chambers, Alfred Gelder Street, Hull.

CAMBRIDGESHIRE.
Hon. Secretary and Convener of Panel : H. C. Hughes, Esq., M.A., A.R.I.B.A., Tunwells Court, Trumpington Street, Cambridge.

SURREY, MIDDLESEX, HERTFORD AND SUFFOLK.
The Secretary,
The Royal Institute of British Architects,
9, Conduit Street, London, W.1.

Or applications may be made to :—
The Secretary,
The Council for the Preservation of Rural England,
17, Great Marlborough Street,
Regent Street, London, W.1.
Telephone : Gerrard 4744.

ARCHITECTS (REGISTRATION) BILL.

DEBATE ON SECOND READING IN THE HOUSE OF LORDS ON TUESDAY, 27 NOVEMBER.

The Earl of Crawford, moving the second reading of the Architects (Registration) Bill, explained that its object was to improve the status of architects and the quality of architecture. A properly organised system of registration would be beneficial both to the profession and to the public. The measure had the support of the profession and of its allied societies. There was need for better education of the profession. It must be generally admitted that much bad and ugly building was in progress, mainly on account of defective education. Qualified men were not responsible for that condition of things, but those whose professional education was insufficient for the work they had undertaken. He did not claim that the Bill was going to produce great architects. It would, however, raise the general standard of architectural efficiency throughout the country. The Bill was of a voluntary rather than of a compulsory character; it did not seek to create a close profession, nor did it lay down a stereotyped or standardised system of education by examination.

Lord Parmoor supported the motion.

Lord Carson said he had been asked by the Ulster Society of Architects to support the Bill, and Lord Strachie said he was Chairman of the Parliamentary Committee of the County Councils Association, which had given the Bill general approval.

Lord Danesfort was doubtful whether the Board of Architectural Education, as it was proposed to constitute it, was the best form of board. There would be over 50 members.

The Earl of Crawford said that he would later ask the House to confer on the Board of Architectural Education power to act through committees if it should appear that that power would not otherwise exist.

Lord Desborough, Captain, Yeoman of the Guard, said the Government left the passage of the Bill entirely to the discretion of the House. The state of public business was such that a private member's Bill, if it should happen to be opposed, was extremely unlikely to pass in the House of Commons. A Bill on this subject was introduced in the House of Commons last year, and after two hours' debate the House was counted out. It did not strike the Government that there was any very exuberant enthusiasm in another place for the provisions of this measure. The Privy Council would, he understood be willing to undertake the duties suggested to be imposed on them by the Bill subject to certain re-drafting. The representatives of Northern Ireland were in favour of the Bill, subject to the amendment of Clause 21, relating to the application of the measure to Northern Ireland.

The Bill was read a second time.

THE BILL IN COMMITTEE,
TUESDAY, 4 DECEMBER.

On the Order for the House being put into Committee on the Architects (Registration) Bill,

The Earl of Crawford, who is in charge of the measure, said the amendments which appeared on the paper in his name had been accepted by the Institute of Architects.

They were nearly all moved to meet the wishes of the Institution of Civil Engineers and the Surveyors' Institution. Only one of the amendments raised any question of substance and even that was rather small. The others purely drafting amendments.

The Marquess of Salisbury, Lord Privy Seal, said the Government had not put down any amendments at this stage, but it was possible that on the third reading of the Bill an amendment would be moved which he hoped the noble earl would be able to accept. It was not an amendment of any very great importance.

The House went into Committee, and the several amendments were agreed to.

The Earl of Crawford, replying to Lord Danesfort, said that the Board of Architectural Education was invested with large powers and discretion in the matters of time, place, and nature of examinations. It was empowered to appoint, and to delegate its responsibilities to sub-committees. There was a tendency nowadays to ensure variety in architectural education, an excellent thing in artistic matters, and he hoped that that tendency would be maintained by the Board.

The Bill, as amended, was reported to the House.

NOTES FROM THE MINUTES OF THE COUNCIL.

5 *November* 1928.

World Engineering Congress, Tokio.

It was agreed to invite Mr. Howard Robertson *[F.]* to write a paper on "The Recent Development of Architecture in Great Britain" for submission to the World Engineering Congress, which will be held at Tokio in 1929.

Presentation of Sketch Books.

On the recommendation of the Literature Standing Committee and with the consent of the Executors, it was decided to present to the Institute of Architects of New South Wales some volumes of the Architectural Association Sketch Book, which were bequeathed to the R.I.B.A. by the late Mr. Andrew Oliver.

Salaried Appointments Abroad.

On the recommendation of the Salaried Members' Committee it was decided :

(1) To call a conference of representatives of the Surveyors' Institution, the Architectural Association, the A.A.S.T.A., and the R.I.B.A. Salaried Members' Committee to discuss the question of salaried employment abroad with a view to ascertaining the conditions generally and the need or possibility of joint action by the four bodies cerned.

(2) To publish a note in the Journal advising members to consult the Committee before accepting appointments abroad.

(3) To empower the Salaried Members' Committee to deal with this matter in an advisory capacity.

Membership.

Twenty-seven candidates were nominated for the Fellowship ; seventy-four candidates were nominated for the Associateship ; one candidate was nominated for the Hon. Fellowship ; six candidates were nominated for the Hon. Associateship; and three candidates for the Hon. Corresponding Membership.

Notices

THE FOURTH GENERAL MEETING.

The Fourth General Meeting (Ordinary) of the Session 1928-29 will be held on Monday, 17 December 1928, at 8 p.m., for the following purposes :—

To read the Minutes of the General Meetings (Special and Business) held on 3 December 1928 ; to confirm the following resolution passed at the Special General Meeting held on 3 December 1928 :—

> "That this meeting hereby approves ratifies and confirms the Provisional Agreement for the sale of No. 28 Bedford Square made between the Royal Institute of British Architects and the Architectural Association produced to the meeting and for the purposes of identification initialled by the President and directs the Council of the Institute to carry the said Agreement into effect."

Formally to admit Members attending for the first time since their election.

To read the following Paper : "Modern Glass," by Mr. Basil Ionides.

CHRISTMAS HOLIDAY LECTURES ON ARCHITECTURE FOR CHILDREN.

Following upon the success of the informal talks given by Mr. and Mrs. Quennell during the last Christmas holidays, the Council of the Royal Institute of British Architects have arranged a further series of three lantern shows on Architecture for children to be held during the forthcoming holidays, in the Meeting Room of the R.I.B.A. at 9 Conduit Street, Regent Street, W.1 (near Oxford Circus Tube Station).

Mr. and Mrs. Quennell, authors of "A History of Everyday Things in England," have kindly agreed to give the talks again and have chosen as their subject "The Architectural Background of the Iliad and the Odyssey."

The poems will be given in outline from translations, and will be illustrated by lantern photographs of ancient buildings as they are, with drawings of possible reconstruction, and by figures and incidents as shown by drawings from Black Figure vases in the British Museum. The talks in this way may serve as an introduction to the wonderful collection of Greek antiquities housed at Bloomsbury.

Parallels will be drawn between the Bronze Age in Greece and in our own country, and attention will be given to the beginnings of the Architecture and everyday things of classical Greece.

The talks will be arranged more especially for boys and girls who are not receiving a classical education, but it is hoped to interest those who are being grounded in the classics, but may not as yet have more than a literary acquaintance with the subject.

The lectures will be held on the following dates :—

Friday, 28 December, 1928, at 3.30 p.m.
Monday, 31 December 1928, at 3.30 p.m.
Friday, 4 January 1929, at 3.30 p.m.

They are for children only, but adults will be admitted if accompanied by children. No charge will be made for admission.

Tickets for any or all of the lectures may be obtained from the Secretary of the Royal Institute of British Architects, 9 Conduit Street, London, W.1.

Owing to the limited seating space of the Hall, it is hoped that application will not be made for more tickets than can be used. Last Christmas requests were received for over 1,600 tickets, but only tickets for the number of seats available were issued and these were not all used, so that disappointment was caused to others who wished to attend and could not obtain tickets.

PROPOSED TOUR TO THE UNITED STATES AND CANADA.

It will be remembered that an announcement was made in the JOURNAL some little time ago regarding a proposed visit to America, and the Secretary has pleasure in announcing that arrangements have now been completed for a party of members of the Institute and Allied Societies to make a short trip to the United States and Canada in July next.

The party will sail from Liverpool for New York by the Cunard liner *Laconia* on 13 July, and will return from Quebec by the *Ascania* on 3 August, arriving in Plymouth 10 August, and London on 11 August. The places visited on the other side will include :—

New York—Washington—Detroit—Niagara Falls—Toronto—Montreal—Quebec,

the trip from Toronto to Montreal being made by steamer down the River St. Lawrence, passing the Thousand Islands *en route*.

The cost of the trip will be approximately £95, this figure including cabin class accommodation on the above-mentioned steamers, rail fares in the U.S.A. and Canada, hotel accommodation (exclusive of meals ashore), sight-seeing trips, etc., and it is believed the trip will prove most attractive.

The Secretary R.I.B.A. will be glad to hear from those members who are interested and to forward a detailed itinerary of the tour on request.

Relatives and friends of members will be welcomed.

LECTURE ON RUSSIAN ARCHITECTURE.

A Lantern Lecture on Russian Ecclesiastical Architecture will be delivered by Mr. David Roden Buxton in the Central Y.M.C.A. Drawing Room, Tottenham Court Road, W.C., on Thursday, 10 January 1929, at 8.30 p.m. Members and students of the R.I.B..A are cordially invited to attend.

WARNING TO MEMBERS.

Members are victimised from time to time by imposters who call upon or write to them claiming to be architects in distress. Members are strongly advised, before yielding to appeals of this character, to communicate with the Architects' Benevolent Society (Telephone: Mayfair 0434).

ACCOMMODATION FOR STUDENTS OF ARCHITECTURE.

The widow of a well-known artist resident in St. John's Wood has two or three vacancies for young students of art and architecture as paying guests.

A comfortable home is offered in a congenial atmosphere, suitable for young people possessing common interests.

Further particulars can be obtained from the Secretary, R.I.B.A.

Competitions

BELFAST WAR MEMORIAL COMPETITION.

Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

COMPETITION FOR THE COLUMBUS MEMORIAL LIGHTHOUSE.

A copy of the report containing complete details of the conditions governing the above competition has been received in the R.I.B.A. Library. Members who desire to enter the competition are required to fill up a registration form and return it to the Pan American Union, Washington. A number of forms are being sent to the R.I.B.A., and can be obtained from the Secretary as soon as they are received. Preliminary details of the competition were published in the R.I.B.A. JOURNAL, 14 July 1928.

CHRISTCHURCH, NEW ZEALAND, ART GALLERY.

Competition for an Art Gallery to be erected in Christchurch, New Zealand, under the R. E. McDougall gift.

Amount to be expended—£25,000.

Competition in two stages :—

1st Stage.—Pencil sketches from which will be selected by the Assessor three designs, each of the authors to receive £100 honorarium.

2nd Stage.—The authors of the three selected designs to compete and the one adjudged the winner by the Jury of Award will be employed as Architect.

Open to all architects on the Register of the Royal Institute of British Architects and all affiliated Institutions.

Assessor : Mr. S. Hurst Seager, C.B.E., F.R.I.B.A.

Jury of Award : The Donor; the Rev. J. K. Archer (who is at present the Mayor of Christchurch); Mr. R. Wallwork, Director of the Canterbury College School of Art, Christchurch (and at present the President of the Canterbury Society of Arts); and the Assessor.

Date for Questions : 12 October 1928.

Delivery of Plans : 13 February 1929.

Conditions to be obtained from the Office of the High Commissioner for New Zealand, The Strand, London, or from J. S. Neville, Esq., Town Clerk, Christchurch, New Zealand.

R.I.B.A. COMPETITION FOR A DESIGN FOR A GARAGE IN THE THEATRE AREA OF LONDON.

The conditions for the R.I.B.A. Competition for the Design of a Garage in the theatre area of London, the prize money for which has been presented by Mr. H. S. Horne, of 74, Park Street, London, W.1, have now been issued and copies may be obtained free by intending competitors on application to the office of the R.I.B.A., 9, Conduit Street, London, W.1.

The competition is open to architects and students of architecture of British nationality.

The first prize is a sum of £350, and in addition £140

will be divided at the discretion of the assessors between competitors whose designs are considered especially meritorious.

The attention of the Assessors has been called to references in the press to the R.I.B.A. Competition for a Design for a Garage in the Theatre area of London.

The Assessors wish to point out :—

(1) That the whole competition is hypothetical.

(2) That there is no intention on the part of the R.I.B.A. to convey the impression that the building will be executed.

(3) That the designs and drawings will remain the property of the competitors.

The site is purposely left indefinite so as to give full scope for new ideas on this interesting subject.

PROPOSED MUNICIPAL BUILDINGS AND MARKET HALL, ELLESMERE PORT.

The Urban District Council of Ellesmere Port and Whitby invite architects to submit designs in competition for the Municipal Buildings and Market Hall proposed to be erected on a site in Whitby Road, Ellesmere Port.

Assessor : Mr. T. R. Milburn [*F.*].

Premiums : £100, £75 and £50.

Last day for sending in designs, 15 January 1929.

Last day for questions, 8 November 1928.

Conditions of the above competition may be obtained from the Clerk to the Council, Council Offices, Ellesmere Port, by depositing £1 1s.

SIMON BOLIVAR MEMORIAL.

PRELIMINARY DETAILS OF A COMPETITION FOR THE ERECTION OF A MONUMENT TO THE LIBERATOR BOLIVAR IN THE CITY OF QUITO.

A competition has been opened for the erection in Quito of a monument to Bolivar.

The Ecuadorean Minister in Paris and two members of the Sociedad Bolivariana of Quito, residing in Paris, will form a Committee to organise and carry out the said competition.

A jury of four members, composed of experts, artists and art critics will judge the works presented.

The designs, "Esbozos" (drawings or sketches), "maquettes," etc., which it is desired to present must be forwarded to the Legation of Ecuador, 91 Avenue Wagram, Paris, not later than 31 March 1929.

The sum of 2,000,000 French francs is available for the purpose of erecting the monument. This sum includes the fees of the artist who will carry out the work, either by himself or with others acting under his direction.

Honourable mention will be awarded to the authors of the designs adjudged second and third.

The decision of the Jury will be submitted to the Sociedad Bolivariana, of Quito, for ratification, prior to the contract with the author of the selected design being signed.

Members' Column

APPOINTMENTS VACANT.

EDINBURGH COLLEGE OF ART. SCHOOL OF ARCHITECTURE.

POST OF ASSISTANT INSTRUCTOR IN DESIGN IN THE DAY SCHOOL.

THE Assistant Instructor in Design should be a Member (Fellow or Associate) of the Royal Institute of British Architects. He should be a practising Architect, and will be encouraged to practice as far as his spare time and his duties to the College permit. He should have a thorough knowledge of modern methods of instruction, the system of the School being founded on that of the Ecole des Beaux Arts. He should, if possible, be a holder of one or more of the greater studentships, such as the Pugin, Silver Medal, Tite, Soane, etc. Salary to commence at £400.

POST OF PART-TIME INSTRUCTOR.

THE Part-time Instructor should be a member of the R.I.B.A., and preferably holder of one of the greater studentships. Salary, £200 per annum.

Applications for the above posts to be sent to the Secretary, Edinburgh College of Art, by 11 December.

PARTNER WANTED.

ADVERTISER, 35 years in successful practice in West of England, requires a Partner.—Apply, Box 2611, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

LONDON Architects (FF.R.I.B.A.), with interesting practice, would be willing to consider an application from a young, energetic Architect of good personality and able to secure work, with a view to Partnership.—Reply, with brief particulars in first instance, to Box No. 1911, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

PARTNERSHIP WANTED.

F.R.I.B.A. with wide experience in domestic, public, factory and town planning work, desires Partnership or Appointment with such in view. Highest recommendations. Small capital available. —Apply, Box No. 1610, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

PARTNERSHIP required in London or Kent district by A.R.I.B.A. with wide and exceptional experience as designer and detailer of high-class domestic, bank, and office buildings. Highest references.—Apply, Box No. 1128, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

PRACTICE OR PARTNERSHIP WANTED.

MEMBER (age 41), 18 years in practice, which is at present dormant, desires to purchase genuine, well-established Practice or Partnership with firm of standing. South Coast or West of England preferred.—Apply, Box No. 2598, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

CHANGE OF ADDRESS.

MR. SAMUEL DAVIDSON [*A.*] has changed his address to 9 Cardigan Road, Richmond, Surrey.

LOCAL AGENT.

ARCHITECT and Surveyor in private practice in the West of England would act as local Agent for London or other Architects having work in this district.—Apply, Box No. 9268, c/o Secretary, R.I.B.A., 9 Conduit Street, W.1.

OFFICE ACCOMMODATION.

F.R.I.B.A. has large, light room to let, Gray's Inn ; share of assistant for typing and tracing, etc., can be arranged.—Apply, Box No. 2010, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ASSOCIATE of the Institute, with offices in Lincoln's Inn Fields, has fine large room to let with service attendance for entrance, etc. Would suit provincial firm requiring London office admirably. Open to discuss conditions with suitable applicant, who must be a principal and member of the Institute.—Apply Box No. 6628, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

FELLOW of the Institute, with a West-end office, having a room to spare, desires to meet another Architect with a view to sharing accommodation and running expenses.—Apply Box No. 7474, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

F.R.I.B.A., with an office in the West End, desires to meet another Architect with a view to sharing accommodation and running expenses.—Apply Box No. 2118, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

MANUFACTURERS' CATALOGUES.

A. W. POWELL [*Licentiate*] will be pleased to receive manufacturers' catalogues. Work being carried out includes housing schemes and small public buildings of a municipal character.—Communications c/o The City Engineer's Office, Town Hall, Salford.

Minutes III

SESSION 1928–29.

At a Special General Meeting held on Monday, 3 December 1928, at 8 p.m.

Mr. H. V. Lanchester, Vice-President, in the chair.

The attendances book was signed by 21 Fellows (including 8 members of Council), 14 Associates (including 2 members of Council, 3 Licentiates (including 1 member of Council).

The minutes of the Special General Meeting held on Monday, 19 March, having been published in the Journal were taken as read, confirmed, and signed as correct.

The Chairman stated that the Special General Meeting had been called for the purpose of considering and, if thought fit, passing the following resolution :—

> "That this meeting hereby approves, ratifies and confirms the Provisional Agreement for the sale of No. 28 Bedford Square made between the Royal Institute of British Architects and the Architectural Association produced to the meeting and for the purposes of identification initialled by the President and directs the Council of the Institute to carry the said agreement into effect."

The resolution was moved by Lt.-Col. P. A. Hopkins and seconded by Mr. Edward C. P. Monson, and after a short discussion was put to the meeting and carried by an unanimous vote.

The meeting terminated at 8.15 p.m.

Minutes IV

SESSION 1928–29.

At the Third General Meeting (Business) of the Session 1928–29 held on Monday, 3 December 1928, at the conclusion of the Special General Meeting above recorded and similarly constituted, the Minutes of the Ordinary General Meeting held on 19 November 1928, having been published in the Journal, were taken as read, confirmed and signed as correct.

The following candidates for Membership were elected by show of hands :—

AS HON. FELLOW (1).

H.R.H. The DUKE OF YORK, K.G., K.T., P.C., G.C.V.O., G.C.M.G.

AS FELLOWS (27).

Andrews : Francis Baugh, F.S.A., F.R.Hist.S. [*A.* 1889], Birmingham.
Badcock : Paul [*A.* 1920].
Edwards : Kendrick, M.Inst.C.E. [*A.* 1926], Belfast.
Fisher : Colonel Stanley Howe, M.C. [*A.* 1914].
Foggitt : George Herbert [*A.* 1914], Leeds.
Hall : Captain Montagu Ashley [*A.* 1922], Lincoln.
Harrison : William Holgate [*A.* 1914], Blackburn.
Hebblethwaite : Bernard Robinson [*A.* 1913], Cairo.
Herbert : Albert [*A.* 1898], Leicester.
Hirst : Henry Cecil Montague [*A.* 1886], Bristol.
Horniman : John Henry [*A.* 1915], Calcutta.
Pike : Charles William [*A.* 1922], Dorchester.
Pite : Robert William [*A.* 1921].
Selway : Edward Ralph Douglas [*A.* 1912].
Smith : Charles Benjamin [*A.* 1909].
Stillman : Cecil George [*A.* 1922], Ipswich.
Taylor : William John [*A.* 1921], Inverness.
Wilsdon : Percy Thomas [*A.* 1919].

And the following Licentiates who have passed the qualifying Examination :

Foster : William Thomas Benjamin, Seaford.
Geeson : Herbert Lambert, Nairobi, Kenya Colony.
Gorst : Frank Herbert, Blackpool.
Griffith : Gronwy Robert, Denbigh.
Hastie : Edward.
Jenkin : Captain Ernest Edward Kemeys, Exeter.
Smith : Roland Ingleby, O.B.E., F.S.I., Belfast.

And the following Licentiates who are qualified under Section IV, Clause 4 *c* (ii) of the Supplemental Charter of 1925 :

Adkin : Alexander George, Ilkley.
Jacques : John Henry.

AS ASSOCIATES (74).

Alexander : (Miss) Ellen Baker [Passed five years' course at Manchester University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Leeds.
Armstrong : Frederick Bertram [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Hove.
Ashford : Tolson Murray [Passed five years' joint course at the Birmingham School of Architecture and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Birmingham.
Barford : Thomas Quintus [Final], Sydney, N.S.W.
Bennett : Charles George Gordon [Special].
Bertram : William Raymond Boyd [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Glasgow.
Bodie : William George Rowntree [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Aberdeen.
Brinton : William Ralph [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].
Brown : Henry [Final], Blackpool.
Castle : James Thomas [Final].
Coates : Harold John [Final.]
Conway : James Simpson [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Maidstone.
Cordiner : Albert Dick [Final].
Cordiner : Thomas Smith [Final], Glasgow.
Cormack : William Arthur Smith [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Lossiemouth.
Cowser : Benjamin [Final], Belfast.
Crowe : George Kenneth, B.Arch. (Toronto) [Final].
Dallachy : John Eadie Waddell [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Paisley.
Davidson : Alexander John [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Douglas, Isle of Man.

Davies : Edward Foulkes [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Flint.

Day : Ronald Frederick Richard [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Cape Town.

Dicker : (Miss) Alma Josephine [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].

Driver : Samuel Roland [Final], Leeds.

Drury : Henry Myles Reilly [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].

Fowler : Donald Alexander [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Inverness.

Fraser : Roderick Donald [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Inverness.

Fry : Francis Stephen [Final], Weston-super-Mare.

Gardiner : James Andrew, B.Arch. (Sydney), [Final].

Garnett : George Stancliffe [Final], Lytham.

Gray : (Miss) Sylvia Charity [Passed five years' course at University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice].

Hamilton : John Visick [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Windsor.

Harrington : Denis Edmund [Final].

Hartley : William David [Final], Slough.

Heal : Robert Garnett [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice].

Jackson : (Miss) Ruth Knox [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Aberdeen.

Jordan : Robert Furneaux [Passed five years' joint course at the Birmingham School of Architecture and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Birmingham.

Kershaw : Fred [Special], Littleborough, Lancs.

King : John Thomson [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Glasgow.

Lee : John William [Final], Leeds.

Lewis : Owen Gwynedd [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Portmadoc, N. Wales.

Lloyd : John Trevor [Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice].

Lusby : Arthur Milner [Special], Sheffield.

McCrea : William [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Glasgow.

McEwan : (Miss) Margaret Jean [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Glasgow.

McGrath : Raymond [Special Exemption], Cambridge.

MacLean : Archibald, B.A. [Passed five years' course at Manchester University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Manchester.

Mirams : Dennis George [Passed five years' course at University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice].

Morrison : James [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice].

Mount : Edward Cyril [Final], Leicester.

Owen : Alec. [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Wallasey, Cheshire.

Parker : Cecil James [Final], Nottingham.

Peacock : Kenneth John Renshaw [Final], Sevenoaks.

Raby : Laurence [Final], Brierfield, Lancs.

Randle : Frederic Lionel [Final], Smethwick, Staffs.

Rigg : (Miss) Mary Freda [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Esher.

Ritchie : Duthie [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Aberdeen.

Robbie : Henry Pearce [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Wormit-on-Tay.

Smart : George Douglas [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Shanghai.

Smith : Meredith Saphir [Final], New York City.

Smith : Stanley Harold [Final].

Stanley : (Miss) Theodora Christine [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Calcutta.

Sunter : John Ernest [Final], Chester.

Sutcliffe : Gordon [Final], Southbourne, Hants.

Tha Tun : B.Sc. (Rangoon) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Rangoon.

Trubshawe : Wolstan Vyvyan, M.A. [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].

Varcoe : Leo Cyril Francis [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Dublin.

Walker : Stansfield Thomas, B.A. [Passed five years' joint course at the Cambridge University School of Architecture and the Architectural Association. Exempted from Fina Examination after passing Examination in Professiona Practice].

Warren : George Pearsons [Final], Leeds.

Wilkinson : (Miss) Mary Leonora [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professiona Practice], Melcombe-Bingham, Dorchester.

Williams: David John [Passed five years' course at the Technical College, Cardiff. Exempted from Final Examination after passing Examination in Professional Practice], Ynyshir, Glam.

Williams: Lawrence Paul [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].

Wilson: James William Gilchrist [Final], Birchington, Kent.

Wood: Roland [Special], Newcastle-on-Tyne.

Woodhouse: Hubert Ollyett [Special].

AS HON. ASSOCIATES [6].

Chancellor: Edwin Beresford, M.A. (Oxon.), F.S.A., F.R.Hist.Soc.

Creswell: Captain William Thomas, Barrister-at-Law, Associate Surveyors' Institution.

Hanneford-Smith: William, F.R.S.E., Assoc.Inst.C.E.

MacColl: Dugald Sutherland, M.A. (Lond.), LL.D. (Glasgow), Litt.D. (Oxon), Fellow of University College, London.

Ross: Thomas Henry, M.A., Mus.Doc., F.R.C.O., Hon. Canon and Canon Precentor of Leicester Cathedral. Patron and Rector of Church Langton.

Ware: Major-General Sir Fabian Arthur Goulstone, K.C.V.O., K.B.E., C.B., C.M.G.

AS HON. CORR. MEMBERS [3].

Berlage: Hendrik Petrus, Dr., h.c., Universities of Groningen, Delft, Zurich and Vienna. The Hague.

Garnier: Tony, Architecte en chef du Gouvernement, Lyon.

Léon: Paul, Directeur Général des Beaux Arts, Membre de l'Institut. Paris.

The following members attending for the first time since their election were formally admitted by the Chairman:—

Frank Charles Mears [*F.*].
George Harry Wenyon [*F.*].
Raymond McGrath [*A.*].

The meeting then proceeded to consider the Council's proposals for the amendment of the Regulations governing the Promotion and Conduct of Architectural Competitions.

Sir Brumwell Thomas moved that on page 1, after paragraph (c) the following words be inserted:—

"This regulation shall also preclude the regular staff and present students of a School of Architecture from taking part in a competition in which a member of the regular teaching staff is acting as sole Assessor, but not in cases where a Jury of three or more Assessors is concerned of whom only one is a member of the regular teaching staff."

After discussion the Council's resolution was put to the meeting and carried.

Sir Brumwell Thomas moved that on page 2, Clause 1, at the end of the second paragraph, the following words be inserted after "building":—

"The foregoing Scale is exclusive of travelling and other out-of-pocket expenses, which are to be charged in addition."

The Council's resolution was put to the meeting and carried.

Sir Brumwell Thomas moved that on page 3, Clause 6, Section (d) the following words be omitted:—

"or the estimate of the competitor should no outlay be stated."

The Council's resolution was put to the meeting and carried.

The formal business of the General Meeting having concluded the Chairman invited members to join in a private and informal discussion on subjects of professional interest or difficulty.

The meeting terminated at 9.40 p.m.

THE A.B.S. OPTIONAL POLICY.

The Architects' Benevolent Society offers an attractive "Ten Years Optional Policy," particularly designed to interest the young architect. The special feature of the policy is that it avoids the necessity of a decision at the outset as to the ultimate form and amount of the policy.

For the first ten years under this scheme, the full sum assured is payable in the event of death, the premium payable being less than that for an ordinary Whole-Life With-Profit Assurance. If death should occur during the first ten years the return in cash is very large compared with the amount of the premiums paid.

For example, in the case of a man aged thirty a policy for £1,000 can be obtained for a quarterly deposit of £5 12s. 11d. (or annually £21 10s.).

At the end of ten years the Assured has the choice of one of the following four different forms of benefit:—

(1) The policy may be continued at the same premium for the full amount assured as an ordinary Whole-life With-profit Assurance for £1,000.

(2) The assurance may be continued at the same premium, as a With-Profit Endowment Assurance for a reduced amount, *e.g.*, £766 maturing at age 65, £660 at age 60, or £542 at 55.

(3) The full amount assured, viz., £1,000, may be continued as a With-Profit Endowment Assurance at an increased annual premium, *e.g.*, £31 13s. 4d. payable at age 65, £39 5s. 10d. at 60, or £53 at 55.

(4) The payment of the premium may cease altogether and the policy be converted into a fully paid-up With-Profits Assurance, either Whole Life or Endowment, as desired. (Whole Life £331, Endowment £270 at 65, £251 at 60, or £228 at 55.)

Special "House Purchase" Option.

If after five years the Assured should require an advance towards the purchase of a house under the Architects' Benevolent Society "House Purchase Scheme" (applicable only in Great Britain), the policy may be used as part of the collateral security for the loan. If this were done a considerable saving could be made.

N.B.—Under options (1) to (4) the policy will be entitled to share in profits declared in respect of the period after ten years, so that the figures quoted above will be considerably increased.

It should be noted that unlike all other schemes of convertible assurance the premiums are not increased when the change is made, unless an Endowment Assurance for the full amount of the policy is chosen, and even then, no further medical examination is required.

Please write for particulars and special terms to the Secretary, Architects' Benevolent Society, 9 Conduit Street, W.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinons of their authors and not as representative expression of the Institute.

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R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1928: 22 December. 1929: 12, 26 January; 9, 23 February; 9, 23 March; 13, 27 April; 18 May; 1, 15, 29 June; 13 July; 10 August; 21 September; 19 October.